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PTO/SB/05 (2/98)

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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

Only for new nonprovisional applications under 37 CFR 1.53(h)

Attorney Docket No.	38-21(15503)B
First Named Inventor or Application Identifier	ANDERSEN
Title	Nucleic Acid Molecules and Other Molecules Associated with Plants
Express Mail Label No.	

APPLICATION ELEMENTS

MEPEP chapter 600 concerning utility patent application contents

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ *Fee Transmittal Form (Form PTO-1082)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages]
(preferred arrangement set forth below)
- Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R&D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claims
 - Abstract of the Disclosure
3. ☐ Drawing(s) (35 USC 113) [Total Sheets]
4. ☐ Oath or Declaration [Total Pages]
- a. ☒ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]
- i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named
in the prior application, see 37 CFR 1.63(d)(2) and
1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy
of the oath or declaration is supplied under Box 4b, is considered
as being part of the disclosure of the accompanying application
and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
- a. ☒ Computer Readable Copy
- b. ☒ Paper Copy (identical to computer copy)
- c. ☒ Statement verifying identity of above
copies

ACCOMPANYING APPLICATION PARTS

8. ☐ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503) (Two)
(should be specifically itemized)
14. ☐ *Small Entity Statement(s) ☐ Statement filed in prior application, Status still proper and desired
15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
16. ☐ Other:

*NOTE FOR ITEMS 1 & 14: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No: /

Prior Application Information: Examiner:

Group/Art Unit:

18. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

or ☒ Correspondence address below

(Insert Customer No. or Attach bar code label here)

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Signature	Lawrence M. Lavin, Jr.		Date	April 18, 2000	

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Did R. Mark Reg. No 41,408

April 18, 2000

Assistant Commissioner for Patents
Washington, D.C. 20231

Box Patent Application

Re: U.S. Non-Provisional Utility Patent Application
Application No.: To Be Assigned
Filed: Herewith
For: **Nucleic Acid Molecules and Other Molecules
Associated with Plants**
Inventors: Scott E. ANDERSEN *et al.*
Atty. Docket: 38-21(15503)B

Sir:

The following documents are forwarded herewith for appropriate action by the U.S.
Patent and Trademark Office:

1. Utility Patent Application Transmittal (PTO/SB/05);
2. Form PTO-1082 (in duplicate);
3. U.S. Utility Patent Application entitled:

Nucleic Acid Molecules and Other Molecules Associated with Plants

and naming as inventors:

Scott E. ANDERSEN and Dane K. FISHER,

the application consisting of:

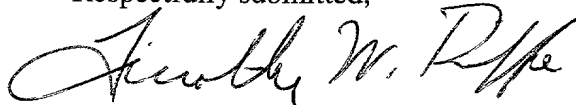
- a. A specification containing:
 - (i) 92 pages of a description prior to the claims;
 - (ii) 1 page of claims (7 claims);
 - (iii) a one (1) page abstract; and
 - (iv) 8,914 pages of a sequence listing;

4. Statement Regarding Sequence Submission;
5. A CD-ROM containing the sequence listing;
6. Original Declaration and Power of Attorney, executed by inventor Scott E. ANDERSEN (3 pages);
7. Original Declaration and Power of Attorney, executed by inventor Dane K. FISHER (3 pages);
8. An Information Disclosure Statement;
9. Form PTO-1449 (1 page), with 8 accompanying documents;
10. Check No. 326706 in the amount of \$690.00 to cover the basic filing fee; and
11. Two (2) return postcards.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible.

In accordance with 37 C.F.R. § 1.821(f), the paper copy of the sequence listing and the computer readable copy of the sequence listing submitted herewith in the above application are the same.

Respectfully submitted,



David R. Marsh (Reg. No. 41,408)

Timothy W. Riffe (Reg. No. 43,881)

Enclosures

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Attorney Docket No. 38-21(15503)B

ASSISTANT COMMISSIONER FOR PATENTS
 Washington, DC 20231

Sir:

Transmitted herewith for filing is the patent application of

Inventors: Scott E. ANDERSEN *et al.*

For: Nucleic Acid Molecules and Other Molecules Associated with Plants

Enclosed are:

- ☐ _____ sheets of informal drawings.
- ☒ An assignment of the invention to _____
- ☐ Form PTO-1595.
- ☐ A certified copy of a _____ application.
- ☐ A verified statement to establish small entity status under 37 C.F.R. § 1.9 and 37 C.F.R. § 1.27.
- ☒ Executed Combined Declaration and Power of Attorney for Patent Application (6 total pages).

The filing fee has been calculated as shown below:

	(Col. 1)	(Col. 2)
FOR	NO. FILED	NO. EXTRA
BASIC FEE		
TOTAL CLAIMS	7 - 20 = *	0
INDEP. CLAIMS	3 - 3 = *	0
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENTED		

*If the difference in Col. 1 is less than zero, enter "0" in Col. 2

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TOTAL	\$

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x 78 =	0.00
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TOTAL	\$ 690.00

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☐ Any patent application processing fees under 37 C.F.R. § 1.17.

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☐ Any filing fees under 37 C.F.R. § 1.16 for presentation of extra claims.

Date: April 18, 2000

Lawrence M. Lavin, Jr.
 Lawrence M. Lavin, Jr. (Reg. No. 30,768)

By [Signature] Reg. No. 41,408

NUCLEIC ACID MOLECULES AND OTHER MOLECULES ASSOCIATED WITH PLANTS

5

Field of the Invention

The present invention is in the field of plant biochemistry. More specifically the invention relates to nucleic acid molecules that encode proteins and fragments of proteins produced in plant cells, in particular, maize plants. The invention also relates to proteins and fragments of proteins so encoded and antibodies capable of binding the proteins. The invention also relates to methods of using the nucleic acid molecules, proteins and fragments of proteins.

Background of the Invention

I. EXPRESSED SEQUENCE TAG NUCLEIC ACID MOLECULES

Expressed sequence tags, or ESTs, are short sequences of randomly selected clones from a cDNA (or complementary DNA) library which are representative of the cDNA inserts of these randomly selected clones. McCombie, *et al.*, *Nature Genetics*, 1:124-130 (1992); Kurata, *et al.*, *Nature Genetics*, 8: 365-372 (1994); Okubo, *et al.*, *Nature Genetics*, 2: 173-179 (1992), all of which references are incorporated herein in their entirety.

20

Using conventional methodologies, cDNA libraries can be constructed from the mRNA (messenger RNA) of a given tissue or organism using poly dT primers and reverse transcriptase (Efstratiadis, *et al.*, *Cell* 7:279-288 (1976), the entirety of which is herein incorporated by reference; Higuchi, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 73:3146-3150 (1976), the entirety of which is herein incorporated by reference; Maniatis, *et al.*, *Cell* 8:163 (1976) the entirety of which is herein incorporated by reference; Land, *et al.*, *Nucleic Acids Res.* 9:2251-2266 (1981), the entirety of which is herein incorporated by

25

reference; Okayama, *et al.*, *Mol. Cell. Biol.* 2:161-170 (1982), the entirety of which is herein incorporated by reference; Gubler, *et al.*, *Gene* 25:263 (1983), the entirety of which is herein incorporated by reference).

Several methods may be employed to obtain full-length cDNA constructs. For example, terminal transferase can be used to add homopolymeric tails of dC residues to the free 3' hydroxyl groups (Land, *et al.*, *Nucleic Acids Res.* 9:2251-2266 (1981), the entirety of which is herein incorporated by reference). This tail can then be hybridized by a poly dG oligo which can act as a primer for the synthesis of full length second strand cDNA. Okayama and Berg, report a method for obtaining full length cDNA constructs.

This method has been simplified by using synthetic primer-adapters that have both homopolymeric tails for priming the synthesis of the first and second strands and restriction sites for cloning into plasmids (Coleclough, *et al.*, *Gene* 34:305-314 (1985), the entirety of which is herein incorporated by reference) and bacteriophage vectors (Krawinkel, *et al.*, *Nucleic Acids Res.* 14:1913 (1986), the entirety of which is herein incorporated by reference; and Han, *et al.*, *Nucleic Acids Res.* 15:6304 (1987), the entirety of which is herein incorporated by reference).

These strategies have been coupled with additional strategies for isolating rare mRNA populations. For example, a typical mammalian cell contains between 10,000 and 30,000 different mRNA sequences. Davidson, *Gene Activity in Early Development*, 2nd ed., Academic Press, New York (1976). The number of clones required to achieve a given probability that a low-abundance mRNA will be present in a cDNA library is $N = (\ln(1-P))/(\ln(1-1/n))$ where N is the number of clones required, P is the probability desired, and 1/n is the fractional proportion of the total mRNA that is represented by a single rare mRNA. (Sambrook, *et al.*, *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press (1989), the entirety of which is herein incorporated by reference.).

A method to enrich preparations of mRNA for sequences of interest is to fractionate by size. One such method is to fractionate by electrophoresis through an agarose gel (Pennica, *et al.*, *Nature* 301:214-221 (1983), the entirety of which is herein incorporated by reference). Another such method employs sucrose gradient

5 centrifugation in the presence of an agent, such as methylmercuric hydroxide, that denatures secondary structure in RNA (Schweinfest, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 79:4997-5000 (1982), the entirety of which is herein incorporated by reference).

A frequently adopted method is to construct equalized or normalized cDNA libraries (Ko, *Nucleic Acids Res.* 18:5705-5711 (1990), the entirety of which is herein

10 incorporated by reference; Patanjali, S. R. *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:1943-1947 (1991), the entirety of which is herein incorporated by reference). Typically, the cDNA population is normalized by subtractive hybridization. Schmid, *et al.*, *J. Neurochem.* 48:307-312 (1987) the entirety of which is herein incorporated by reference; Fargnoli, *et al.*, *Anal. Biochem.* 187:364-373 (1990) the entirety of which is herein

15 incorporated by reference; Travis, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:1696-1700 (1988) the entirety of which is herein incorporated by reference; Kato, *Eur. J. Neurosci.* 2:704 (1990); and Schweinfest, *et al.*, *Genet. Anal. Tech. Appl.* 7:64 (1990), the entirety of which is herein incorporated by reference). Subtraction represents another method for reducing the population of certain sequences in the cDNA library. Swaroop, *et al.*,

20 *Nucleic Acids Res.* 19:1954 (1991), the entirety of which is herein incorporated by reference).

ESTs can be sequenced by a number of methods. Two basic methods may be used for DNA sequencing, the chain termination method of Sanger *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 74: 5463-5467 (1977), the entirety of which is herein incorporated by

25 reference and the chemical degradation method of Maxam and Gilbert, *Proc. Nat. Acad. Sci. (U.S.A.)* 74: 560-564 (1977), the entirety of which is herein incorporated by reference. Automation and advances in technology such as the replacement of

radioisotopes with fluorescence-based sequencing have reduced the effort required to sequence DNA (Craxton, *Methods*, 2: 20-26 (1991), the entirety of which is herein incorporated by reference; Ju *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 92: 4347-4351 (1995), the entirety of which is herein incorporated by reference; Tabor and Richardson, *Proc.*

5 *Natl. Acad. Sci. (U.S.A.)* 92: 6339-6343 (1995), the entirety of which is herein incorporated by reference). Automated sequencers are available from, for example, Pharmacia Biotech, Inc., Piscataway, New Jersey (Pharmacia ALF), LI-COR, Inc., Lincoln, Nebraska (LI-COR 4,000) and Millipore, Bedford, Massachusetts (Millipore BaseStation).

10 In addition, advances in capillary gel electrophoresis have also reduced the effort required to sequence DNA and such advances provide a rapid high resolution approach for sequencing DNA samples (Swerdlow and Gesteland, *Nucleic Acids Res.* 18:1415-1419 (1990); Smith, *Nature* 349:812-813 (1991); Luckey *et al.*, *Methods Enzymol.* 218:154-172 (1993); Lu *et al.*, *J. Chromatog. A.* 680:497-501 (1994); Carson *et al.*, *Anal.*
15 *Chem.* 65:3219-3226 (1993); Huang *et al.*, *Anal. Chem.* 64:2149-2154 (1992); Kheterpal *et al.*, *Electrophoresis* 17:1852-1859 (1996); Quesada and Zhang, *Electrophoresis* 17:1841-1851 (1996); Baba, *Yakugaku Zasshi* 117:265-281 (1997), all of which are herein incorporated by reference in their entirety).

ESTs longer than 150 bases have been found to be useful for similarity searches
20 and mapping. (Adams, *et al.*, *Science* 252:1651-1656 (1991), herein incorporated by reference.) EST sequences normally range from 150-450 bases. This is the length of sequence information that is routinely and reliably generated using single run sequence data. Typically, only single run sequence data is obtained from the cDNA library, Adams, *et al.*, *Science* 252:1651-1656 (1991). Automated single run sequencing
25 typically results in an approximately 2-3% error or base ambiguity rate. (Boguski, *et al.*, *Nature Genetics*, 4:332-333 (1993), the entirety of which is herein incorporated by reference).

EST databases have been constructed or partially constructed from, for example, *C. elegans* (McCombie, *et al.*, *Nature Genetics* 1:124-131 (1992), human liver cell line HepG2 (Okubo, *et al.*, *Nature Genetics* 2:173-179 (1992)), human brain RNA (Adams, *et al.*, *Science* 252:1651-1656 (1991); Adams, *et al.*, *Nature* 355:632-635 (1992)),

5 *Arabidopsis*, (Newman, *et al.*, *Plant Physiol.* 106:1241-1255 (1994)); and rice (Kurata, *et al.*, *Nature Genetics* 8:365-372 (1994).

II. SEQUENCE COMPARISONS

A characteristic feature of a protein or DNA sequence is that it can be compared with other known protein or DNA sequences. Sequence comparisons can be undertaken

10 by determining the similarity of the test or query sequence with sequences in publicly available or propriety databases ("similarity analysis") or by searching for certain motifs ("intrinsic sequence analysis")(e.g. *cis* elements)(Coulson, *Trends in Biotechnology*, 12: 76-80 (1994), the entirety of which is herein incorporated by reference; Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997), the entirety of which is herein incorporated by

15 reference).

Similarity analysis includes database search and alignment. Examples of public databases include the DNA Database of Japan (DDBJ)(<http://www.ddbj.nig.ac.jp/>); Genebank (<http://www.ncbi.nlm.nih.gov/web/Genbank/Index.html>); and the European Molecular Biology Laboratory Nucleic Acid Sequence Database (EMBL)

20 (http://www.ebi.ac.uk/ebi_docs/embl_db.html). A number of different search algorithms have been developed, one example of which are the suite of programs referred to as BLAST programs. There are five implementations of BLAST, three designed for nucleotide sequences queries (BLASTN, BLASTX, and TBLASTX) and two designed for protein sequence queries (BLASTP and TBLASTN) (Coulson, *Trends in*

25 *Biotechnology*, 12: 76-80 (1994); Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997)).

BLASTN takes a nucleotide sequence (the query sequence) and its reverse complement and searches them against a nucleotide sequence database. BLASTN was designed for speed, not maximum sensitivity, and may not find distantly related coding sequences. BLASTX takes a nucleotide sequence, translates it in three forward reading frames and three reverse complement reading frames, and then compares the six translations against a protein sequence database. BLASTX is useful for sensitive analysis of preliminary (single-pass) sequence data and is tolerant of sequencing errors (Gish and States, *Nature Genetics*, 3: 266-272 (1993), the entirety of which is herein incorporated by reference). BLASTN and BLASTX may be used in concert for analyzing EST data (Coulson, *Trends in Biotechnology*, 12: 76-80 (1994); Birren, *et al.*, *Genome Analysis*, 1: 543-559 (1997).

Given a coding nucleotide sequence and the protein it encodes, it is often preferable to use the protein as the query sequence to search a database because of the greatly increased sensitivity to detect more subtle relationships. This is due to the larger alphabet of proteins (20 amino acids) compared with the alphabet of nucleic acid sequences (4 bases), where it is far easier to obtain a match by chance. In addition, with nucleotide alignments, only a match (positive score) or a mismatch (negative score) is obtained, but with proteins, the presence of conservative amino acid substitutions can be taken into account. Here, a mismatch may yield a positive score if the non-identical residue has physical/chemical properties similar to the one it replaced. Various scoring matrices are used to supply the substitution scores of all possible amino acid pairs. A general purpose scoring system is the BLOSUM62 matrix (Henikoff and Henikoff, *Proteins*, 17: 49-61 (1993), the entirety of which is herein incorporated by reference), which is currently the default choice for BLAST programs. BLOSUM62 is tailored for alignments of moderately diverged sequences and thus may not yield the best results under all conditions. Altschul, *J. Mol. Biol.* 36: 290-300 (1993), the entirety of which is herein incorporated by reference, uses a combination of three matrices to cover all

contingencies. This may improve sensitivity, but at the expense of slower searches. In practice, a single BLOSUM62 matrix is often used but others (PAM40 and PAM250) may be attempted when additional analysis is necessary. Low PAM matrices are directed at detecting very strong but localized sequence similarities, whereas high PAM matrices are directed at detecting long but weak alignments between very distantly related sequences.

Homologues in other organisms are available that can be used for comparative sequence analysis. Multiple alignments are performed to study similarities and differences in a group of related sequences. CLUSTAL W is a multiple sequence alignment package available that performs progressive multiple sequence alignments based on the method of Feng and Doolittle, *J. Mol. Evol.* 25: 351-360 (1987), the entirety of which is herein incorporated by reference. Each pair of sequences is aligned and the distance between each pair is calculated; from this distance matrix, a guide tree is calculated, and all of the sequences are progressively aligned based on this tree. A feature of the program is its sensitivity to the effect of gaps on the alignment; gap penalties are varied to encourage the insertion of gaps in probable loop regions instead of in the middle of structured regions. Users can specify gap penalties, choose between a number of scoring matrices, or supply their own scoring matrix for both the pairwise alignments and the multiple alignments. CLUSTAL W for UNIX and VMS systems is available at: [ftp.ebi.ac.uk](ftp://ftp.ebi.ac.uk). Another program is MACAW (Schuler *et al.*, *Proteins, Struct. Func. Genet.* 9:180-190 (1991), the entirety of which is herein incorporated by reference, for which both Macintosh and Microsoft Windows versions are available. MACAW uses a graphical interface, provides a choice of several alignment algorithms, and is available by anonymous ftp at: <ncbi.nlm.nih.gov> (directory/pub/macaw).

Sequence motifs are derived from multiple alignments and can be used to examine individual sequences or an entire database for subtle patterns. With motifs, it is sometimes possible to detect distant relationships that may not be demonstrable based on

comparisons of primary sequences alone. Currently, the largest collection of sequence motifs in the world is PROSITE (Bairoch and Bucher, *Nucleic Acid Research*, 22: 3583-3589 (1994), the entirety of which is herein incorporated by reference.) PROSITE may be accessed via either the ExPASy server on the World Wide Web or anonymous ftp site.

- 5 Many commercial sequence analysis packages also provide search programs that use PROSITE data.

A resource for searching protein motifs is the BLOCKS E-mail server developed by S. Henikoff, *Trends Biochem Sci.*, 18:267-268 (1993), the entirety of which is herein incorporated by reference; Henikoff and Henikoff, *Nucleic Acid Research*, 19:6565-6572
 10 (1991), the entirety of which is herein incorporated by reference; Henikoff and Henikoff, *Proteins*, 17: 49-61 (1993). BLOCKS searches a protein or nucleotide sequence against a database of protein motifs or "blocks." Blocks are defined as short, ungapped multiple alignments that represent highly conserved protein patterns. The blocks themselves are derived from entries in PROSITE as well as other sources. Either a protein or nucleotide
 15 query can be submitted to the BLOCKS server; if a nucleotide sequence is submitted, the sequence is translated in all six reading frames and motifs are sought in these conceptual translations. Once the search is completed, the server will return a ranked list of significant matches, along with an alignment of the query sequence to the matched BLOCKS entries.

- 20 Conserved protein domains can be represented by two-dimensional matrices, which measure either the frequency or probability of the occurrences of each amino acid residue and deletions or insertions in each position of the domain. This type of model, when used to search against protein databases, is sensitive and usually yields more accurate results than simple motif searches. Two popular implementations of this
 25 approach are profile searches (such as GCG program ProfileSearch) and Hidden Markov Models (HMMs)(Krough *et al.*, *J. Mol. Biol.* 235:1501-1531 (1994); Eddy, *Current Opinion in Structural Biology* 6:361-365 (1996), both of which are herein incorporated

by reference in their entirety). In both cases, a large number of common protein domains have been converted into profiles, as present in the PROSITE library, or HMM models, as in the Pfam protein domain library (Sonnhammer *et al.*, *Proteins* 28:405-420 (1997), the entirety of which is herein incorporated by reference). Pfam contains more than 500

5 HMM models for enzymes, transcription factors, signal transduction molecules, and structural proteins. Protein databases can be queried with these profiles or HMM models, which will identify proteins containing the domain of interest. For example, HMMSW or HMMFS, two programs in a public domain package called HMMER (Sonnhammer *et al.*, *Proteins* 28:405-420 (1997)) can be used.

10 PROSITE and BLOCKS represent collected families of protein motifs. Thus, searching these databases entails submitting a single sequence to determine whether or not that sequence is similar to the members of an established family. Programs working in the opposite direction compare a collection of sequences with individual entries in the protein databases. An example of such a program is the Motif Search Tool, or MoST
 15 (Tatusov *et al. Proc. Natl. Acad. Sci.* 91: 12091-12095 (1994), the entirety of which is herein incorporated by reference.) On the basis of an aligned set of input sequences, a weight matrix is calculated by using one of four methods (selected by the user); a weight matrix is simply a representation, position by position in an alignment, of how likely a particular amino acid will appear. The calculated weight matrix is then used to search the
 20 databases. To increase sensitivity, newly found sequences are added to the original data set, the weight matrix is recalculated, and the search is performed again. This procedure continues until no new sequences are found.

Summary of the Invention

25 The present invention provides a substantially purified nucleic acid molecule that encodes a maize protein or fragment thereof comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18831.

The present invention also provides one or more substantially purified nucleic acid molecules comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof.

5 The present invention also provides a substantially purified maize protein or fragment thereof, wherein said maize protein is encoded by a nucleic acid molecule that comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18831.

10 The present invention further provides a substantially purified protein, peptide, or fragment thereof encoded by a nucleic acid sequence which specifically hybridizes to a nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO: 1 through SEQ ID NO:18831.

15 The present invention further provides a substantially purified antibody capable of specifically binding to a protein or fragment thereof encoded by a nucleic acid sequence which specifically hybridizes to a nucleic acid molecule having a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO:1 through SEQ ID NO:18831.

20 The present invention also provides a transformed plant transformed to contain a nucleic acid molecule which comprises: (A) an exogenous promoter region which functions in plant cells to cause the production of an mRNA molecule; which is linked to (B) a structural nucleic acid molecule, wherein said structural nucleic acid molecule comprises a nucleic acid molecule that encodes a protein, peptide, or fragment thereof which hybridizes to a nucleic acid sequence selected from the group consisting of a complement of SEQ ID NO:1 through SEQ ID NO:18831 expressed in an effective amount to produce a desirable agronomic effect; which is linked to (C) a 3' non-
25 translated sequence that functions in plant cells to cause the termination of transcription and the addition of polyadenylated ribonucleotides to the 3' end of the mRNA sequence.

The present invention also provides a transformed plant cell containing a nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof, wherein the transcribed strand of said nucleic acid is complementary to a nucleic acid molecule that encodes a protein or fragment thereof. The present invention also provides
5 bacterial, viral, microbial, and plant cells comprising a nucleic acid molecule of the present invention

The present invention also provides a method of producing a plant containing one or more proteins encoded by sequences comprising SEQ ID NO:1 or complement thereof through SEQ ID NO:18831 or complements thereof, expressed in a sufficient amount
10 and/or fashion to produce a desirable agronomic effect.

In accomplishing the foregoing, there is provided, in accordance with one aspect of the present invention, methods of producing genetically transformed plants, comprising the steps of:

- 15 (a) inserting into the genome of a plant cell a recombinant, double-stranded DNA molecule comprising
- (i) a promoter which functions in plant cells to cause the production of an RNA sequence,
 - (ii) a structural DNA sequence that causes the production of an RNA sequence which encodes a desired protein.
 - 20 (iii) a 3' non-translated DNA sequence which functions in plant cells to cause the addition of polyadenylated nucleotides to the 3' end of RNA sequence; where the promoter is homologous or heterologous with respect to the coding sequence and adapted to cause sufficient
25 expression of a protein in desired plant tissues to enhance the agronomic utility of a plant transformed with said gene.

- (b) obtaining a transformed plant cell with said nucleic acid molecule that encodes one or more proteins, wherein said nucleic acid molecule is transcribed and results in expression of said protein(s); and
- (c) regenerating from the transformed plant cell a genetically transformed plant

The present invention also encompasses differentiated plants, seeds, and progeny comprising said transformed plant cells and which exhibit novel properties of agronomic significance.

The present invention also provides a method of producing a plant containing reduced levels of a protein comprising: (A) transforming a plant cell with a nucleic acid molecule that encodes a protein, wherein said nucleic acid molecule is transcribed and results in co-suppression of endogenous protein synthesis activity, and (B) regenerating plants and producing subsequent progeny from the transformed plant.

The present invention also provides a method of determining an association between a polymorphism and a plant trait comprising: (A) hybridizing a nucleic acid molecule specific for a polymorphism to genetic material of a plant, wherein said nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof; and (B) calculating the degree of association between the polymorphism and the plant trait.

The present invention also provides a method of isolating a genetic region, or nucleic acid that encodes a protein or fragment thereof comprising: (A) incubating under conditions permitting nucleic acid hybridization: a marker nucleic acid molecule, preferably an EST, with a complementary nucleic acid molecule obtained from a plant cell or plant tissue; (B) permitting hybridization between said marker nucleic acid molecule, preferably an EST, and said complementary nucleic acid molecule obtained from said plant cell or plant tissue; and (C) isolating said complementary nucleic acid molecule.

The present invention also provides a method for determining a level or pattern in a plant cell of a protein in a plant comprising: (A) incubating, under conditions permitting nucleic acid hybridization, a marker nucleic acid molecule, the marker nucleic acid molecule selected from the group of marker nucleic acid molecules which

5 specifically hybridize to a nucleic acid molecule having the nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18831 or complements thereof or fragments of either, with a complementary nucleic acid molecule obtained from the plant cell or plant tissue, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained

10 from the plant cell or plant tissue permits the detection of an mRNA for the enzyme; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant cell or plant tissue; and (C) detecting the level or pattern of the complementary nucleic acid, wherein the detection of the complementary nucleic acid is predictive of the level or pattern of the protein.

15 The present invention also provides a method for determining the level or pattern of a protein in a plant cell or plant tissue comprising: (A) incubating under conditions permitting nucleic acid hybridization: a marker nucleic acid molecule, the marker nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18831 or complements thereof, with a

20 complementary nucleic acid molecule obtained from a plant cell or plant tissue, wherein nucleic acid hybridization between the marker nucleic acid molecule, and the complementary nucleic acid molecule obtained from the plant cell or plant tissue permits the detection of said protein; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant cell

25 or plant tissue; and (C) detecting the level or pattern of the complementary nucleic acid, wherein the detection of said complementary nucleic acid is predictive of the level or pattern of the protein synthesis.

The present invention also provides a method for determining a level or pattern of a protein in a plant cell or plant tissue which comprises assaying the concentration of a molecule, whose concentration is dependent upon the expression of a gene, the gene having a nucleic acid sequence which specifically hybridizes to a protein marker nucleic acid molecule, the molecule being present in a plant cell or plant tissue, in comparison to the concentration of that molecule present in a plant cell or plant tissue with a known level or pattern of said protein, wherein an assayed concentration of the molecule is compared to the assayed concentration of the molecule in a plant cell or plant tissue with a known level or pattern of said protein.

The present invention also provides a method of determining a mutation in a plant whose presence is predictive of a mutation affecting a level or pattern of a protein comprising the steps: (A) incubating, under conditions permitting nucleic acid hybridization, a marker nucleic acid, the marker nucleic acid selected from the group of marker nucleic acid molecules which specifically hybridize to a nucleic acid molecule consisting of the nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 18831 or complements thereof or fragments of either and a complementary nucleic acid molecule obtained from the plant, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant permits the detection of a polymorphism whose presence is predictive of a mutation affecting the level or pattern of the protein in the plant; (B) permitting hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant; and (C) detecting the presence of the polymorphism, wherein the detection of the polymorphism is predictive of the mutation.

The present invention also provides a method for determining a mutation in a plant whose presence is predictive of a mutation affecting the level or pattern of protein synthesis comprising the steps: (A) incubating under conditions permitting nucleic acid

hybridization: a marker nucleic acid molecule, the marker nucleic acid molecule comprising a nucleic acid molecule that is linked to gene, the gene having a nucleic acid sequence which specifically hybridizes to a sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO:18831 and complements thereof, and a

5 complementary nucleic acid molecule obtained from a plant tissue or plant cell of the plant, wherein nucleic acid hybridization between the marker nucleic acid molecule and the complementary nucleic acid molecule obtained from the plant permits the detection of a polymorphism whose presence is predictive of a mutation affecting said level or pattern of a protein synthesis in the plant; (B) permitting hybridization between said marker
10 nucleic acid molecule and said complementary nucleic acid molecule obtained from said plant; and; (C) detecting the presence of the polymorphism, wherein the detection of the polymorphism is predictive of the mutation.

The present invention also provides a method for reducing expression of a protein in a plant cell, the method comprising: growing a transformed plant cell containing a
15 nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof, wherein the transcribed strand of said nucleic acid is complementary to a nucleic acid molecule that encodes the protein in said plant cell, and whereby the strand that is complementary to the nucleic acid molecule that encodes the protein reduces or depresses expression of the protein.

20 The present invention provides maize nucleic acid molecules for use as molecular tags to isolate genetic regions (i.e. promoters and flanking sequences), isolate genes, map genes, and determine gene function. The present invention further provides maize nucleic acid molecules for use in determining if genes are members of a particular gene family.

25 The present invention also provides a method of obtaining full length genes using maize ESTs or complements thereof or fragments of either.

The present invention also provides a method of isolating promoters and flanking sequences using maize ESTs or complements thereof or fragments of either.

The present invention also provides maize ESTs or complements thereof or fragments of either for use in marker-assisted breeding programs.

5 The present invention also provides a method of identifying tissues comprising hybridizing nucleic acids from the tissue with maize ESTs or complements thereof or fragments of either.

The present invention also provides a method for production of antibodies targeted against the proteins, peptides, or fragments produced by the disclosed or
10 complements thereof or fragments of either.

The present invention also provides a method for the transformation and regeneration of plants comprising sequences hybridizable to the disclosed ESTs or complements thereof or fragments of either.

The present invention also provides a method of modifying plant protein
15 expression by inserting in a chimeric gene sense or antisense constructs of the maize ESTs.

Detailed Description of the Invention

Agents

(a) Nucleic Acid Molecules

20 Agents of the present invention include nucleic acid molecules and more specifically EST nucleic acid molecules or nucleic acid fragment molecules thereof. Fragment EST nucleic acid molecules may encode significant portion(s) of, or indeed most of, the EST nucleic acid molecule. Alternatively, the fragments may comprise smaller oligonucleotides (having from about 15 to about 250 nucleotide residues, and
25 more preferably, about 15 to about 30 nucleotide residues).

A subset of the nucleic acid molecules of the present invention includes nucleic acid molecules that are marker molecules. Another subset of the nucleic acid molecules of the present invention include nucleic acid molecules that encode a protein or fragment thereof. Another subset of the nucleic acid molecules of the present invention are EST molecules.

The term “substantially purified”, as used herein, refers to a molecule separated from substantially all other molecules normally associated with it in its native state. More preferably a substantially purified molecule is the predominant species present in a preparation. A substantially purified molecule may be greater than 60% free, preferably 75% free, more preferably 90% free, and most preferably 95% free from the other molecules (exclusive of solvent) present in the natural mixture. The term “substantially purified” is not intended to encompass molecules present in their native state.

The agents of the present invention will preferably be “biologically active” with respect to either a structural attribute, such as the capacity of a nucleic acid to hybridize to another nucleic acid molecule, or the ability of a protein to be bound by antibody (or to compete with another molecule for such binding). Alternatively, such an attribute may be catalytic, and thus involve the capacity of the agent to mediate a chemical reaction or response.

The agents of the present invention may also be recombinant. As used herein, the term recombinant means any agent (e.g. DNA, peptide etc.), that is, or results, however indirect, from human manipulation of a nucleic acid molecule.

It is understood that the agents of the present invention may be labeled with reagents that facilitate detection of the agent (e.g. fluorescent labels (Prober, *et al.*, *Science* 238:336-340 (1987); Albarella *et al.*, EP 144914, chemical labels (Sheldon *et al.*, U.S. Patent 4,582,789; Albarella *et al.*, U.S. Patent 4,563,417, modified bases (Miyoshi *et al.*, EP 119448, all of which are hereby incorporated by reference in their entirety).

It is further understood, that the present invention provides bacterial, viral, microbial, and plant cells comprising the agents of the present invention.

Nucleic acid molecules or fragment thereof of the present invention are capable of specifically hybridizing to other nucleic acid molecules under certain circumstances. As used herein, two nucleic acid molecules are said to be capable of specifically hybridizing to one another if the two molecules are capable of forming an anti-parallel, double-stranded nucleic acid structure. A nucleic acid molecule is said to be the "complement" of another nucleic acid molecule if they exhibit complete complementarity. As used herein, molecules are said to exhibit "complete complementarity" when every nucleotide of one of the molecules is complementary to a nucleotide of the other. Two molecules are said to be "minimally complementary" if they can hybridize to one another with sufficient stability to permit them to remain annealed to one another under at least conventional "low-stringency" conditions. Similarly, the molecules are said to be "complementary" if they can hybridize to one another with sufficient stability to permit them to remain annealed to one another under conventional "high-stringency" conditions. Conventional stringency conditions are described by Sambrook, *et al.*, In: *Molecular Cloning, A Laboratory Manual, 2nd Edition, Cold Spring Harbor Press, Cold Spring Harbor, New York (1989)*, and by Haymes, *et al.* In: *Nucleic Acid Hybridization, A Practical Approach*, IRL Press, Washington, DC (1985), the entirety of which is herein incorporated by reference. Departures from complete complementarity are therefore permissible, as long as such departures do not completely preclude the capacity of the molecules to form a double-stranded structure. Thus, in order for an nucleic acid molecule or fragment of the present invention to serve as a primer or probe it need only be sufficiently complementary in sequence to be able to form a stable double-stranded structure under the particular solvent and salt concentrations employed.

Appropriate stringency conditions which promote DNA hybridization are, for example, 6.0 x sodium chloride/sodium citrate (SSC) at about 45°C, followed by a wash

of 2.0 x SSC at 50°C, are known to those skilled in the art or can be found in *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989), 6.3.1-6.3.6. For example, the salt concentration in the wash step can be selected from a low stringency of about 2.0 x SSC at 50°C to a high stringency of about 0.2 x SSC at 50°C. In addition, the temperature in the wash step can be increased from low stringency conditions at room temperature, about 22°C, to high stringency conditions at about 65°C. Both temperature and salt may be varied, or either the temperature or the salt concentration may be held constant while the other variable is changed.

In a preferred embodiment, a nucleic acid of the present invention will specifically hybridize to one or more of the nucleic acid molecules set forth in SEQ ID NO: 1 through SEQ ID NO: 18831 or complements thereof under moderately stringent conditions, for example, at about 2.0 x SSC and about 65°C.

In a particularly preferred embodiment, a nucleic acid of the present invention will include those nucleic acid molecules that specifically hybridize to one or more of the nucleic acid molecules set forth in SEQ ID NO:1 through SEQ ID NO: 18831 or complements thereof under high stringency conditions.

In one aspect of the present invention, the nucleic acid molecules of the present invention have one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof. In another aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 90% sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof. In a further aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 95% sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof. In a more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 98%

sequence identity with one or more of the nucleic acid sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof. In an even more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention share between 100% and 99% sequence identity with one or more of the sequences set forth in SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof. In a further, even more preferred aspect of the present invention, one or more of the nucleic acid molecules of the present invention exhibit 100% sequence identity with one or more nucleic acid molecules present within the cDNA libraries LIB3061, LIB3077, LIB36, LIB83, and LIB84 (Monsanto Company, St. Louis, Missouri, United States of America).

In a preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of another plant protein. In another preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of a fungal protein. In another preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of a mammalian protein. In another preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of an algal protein. In another preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of a bacterial protein. In another preferred embodiment of the present invention, a maize protein or fragment thereof of the present invention is a homologue of a soybean protein.

In a preferred embodiment of the present invention, the nucleic molecule of the present invention encodes a maize protein or fragment thereof where a maize protein or fragment thereof exhibits a BLAST probability score of greater than $1E-12$, preferably a BLAST probability score of between about $1E-30$ and about $1E-12$, even more preferably a BLAST probability score of greater than $1E-30$ with its homologue.

In another preferred embodiment of the present invention, the nucleic acid molecule encoding a maize protein or fragment thereof exhibits a % identity with its homologue of between about 25% and about 40%, more preferably of between about 40% and about 70%, even more preferably of between about 70% and about 90% and even more preferably between about 90% and 99%. In another preferred embodiment, of the present invention, a maize protein or fragment thereof exhibits a % identity with its homologue of 100%.

In a preferred embodiment of the present invention, the nucleic acid molecule of the present invention encodes a maize protein or fragment thereof where the maize protein exhibits a BLAST score of greater than 120, preferably a BLAST score of between about 1450 and about 120, even more preferably a BLAST score of greater than 1450 with its homologue.

Nucleic acid molecules of the present invention also include non-maize homologues. Preferred non-maize homologues are selected from the group consisting of alfalfa, *Arabidopsis*, barley, *Brassica*, broccoli, cabbage, citrus, cotton, garlic, oat, oilseed rape, onion, canola, flax, an ornamental plant, pea, peanut, pepper, potato, rice, rye, sorghum, soybean strawberry, sugarcane, sugarbeet, tomato, wheat, poplar, pine, fir, eucalyptus, apple, lettuce, lentils, grape, banana, tea, turf grasses, sunflower, oil palm and *Phaseolus*.

The degeneracy of the genetic code, which allows different nucleic acid sequences to code for the same protein or peptide, is known in the literature. (U.S. Patent No. 4,757,006, the entirety of which is herein incorporated by reference).

In an aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding a soybean protein or fragment thereof in SEQ ID NO: 1 through SEQ ID NO: 18831 due to the degeneracy in the genetic code in that they encode the same protein but differ in nucleic acid sequence.

In another further aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding a soybean protein or fragment thereof in SEQ ID NO: 1 through SEQ ID NO: 18831 due to the fact that the different nucleic acid sequences encode a protein having one or more
 5 conservative amino acid residues.

It is understood that codons capable of coding for such conservative amino acid substitutions are known in the art.

It is well known in the art that one or more amino acids in a native sequence can be substituted with another amino acid(s), the charge and polarity of which are similar to
 10 that of the native amino acid, *i.e.*, a conservative amino acid substitution, resulting in a silent change. Conserved substitutes for an amino acid within the native polypeptide sequence can be selected from other members of the class to which the naturally occurring amino acid belongs. Amino acids can be divided into the following four groups: (1) acidic amino acids, (2) basic amino acids, (3) neutral polar amino acids, and
 15 (4) neutral nonpolar amino acids. Representative amino acids within these various groups include, but are not limited to, (1) acidic (negatively charged) amino acids such as aspartic acid and glutamic acid; (2) basic (positively charged) amino acids such as arginine, histidine, and lysine; (3) neutral polar amino acids such as glycine, serine, threonine, cysteine, cystine, tyrosine, asparagine, and glutamine; and (4) neutral nonpolar
 20 (hydrophobic) amino acids such as alanine, leucine, isoleucine, valine, proline, phenylalanine, tryptophan, and methionine.

Conservative amino acid changes within the native polypeptides sequence can be made by substituting one amino acid within one of these groups with another amino acid within the same group. Biologically functional equivalents of the proteins or fragments
 25 thereof of the present invention can have 10 or fewer conservative amino acid changes, more preferably seven or fewer conservative amino acid changes, and most preferably five or fewer conservative amino acid changes. The encoding nucleotide sequence will

thus have corresponding base substitutions, permitting it to encode biologically functional equivalent forms of the proteins or fragments of the present invention.

It is understood that certain amino acids may be substituted for other amino acids in a protein structure without appreciable loss of interactive binding capacity with structures such as, for example, antigen-binding regions of antibodies or binding sites on substrate molecules. Because it is the interactive capacity and nature of a protein that defines that protein's biological functional activity, certain amino acid sequence substitutions can be made in a protein sequence and, of course, its underlying DNA coding sequence and, nevertheless, obtain a protein with like properties. It is thus contemplated by the inventors that various changes may be made in the peptide sequences of the proteins or fragments of the present invention, or corresponding DNA sequences that encode said peptides, without appreciable loss of their biological utility or activity. It is understood that codons capable of coding for such amino acid changes are known in the art.

In making such changes, the hydropathic index of amino acids may be considered. The importance of the hydropathic amino acid index in conferring interactive biological function on a protein is generally understood in the art (Kyte and Doolittle, *J. Mol. Biol.* 157, 105-132 (1982), herein incorporated by reference in its entirety). It is accepted that the relative hydropathic character of the amino acid contributes to the secondary structure of the resultant protein, which in turn defines the interaction of the protein with other molecules, for example, enzymes, substrates, receptors, DNA, antibodies, antigens, and the like.

Each amino acid has been assigned a hydropathic index on the basis of its hydrophobicity and charge characteristics (Kyte and Doolittle, 1982); these are isoleucine (+4.5), valine (+4.2), leucine (+3.8), phenylalanine (+2.8), cysteine/cystine (+2.5), methionine (+1.9), alanine (+1.8), glycine (-0.4), threonine (-0.7), serine (-0.8),

tryptophan (-0.9), tyrosine (-1.3), proline (-1.6), histidine (-3.2), glutamate (-3.5), glutamine (-3.5), aspartate (-3.5), asparagine (-3.5), lysine (-3.9), and arginine (-4.5).

In making such changes, the substitution of amino acids whose hydrophobic indices are within ± 2 is preferred, those which are within ± 1 are particularly preferred, and those within ± 0.5 are even more particularly preferred.

It is also understood in the art that the substitution of like amino acids can be made effectively on the basis of hydrophilicity. U.S. Patent 4,554,101, incorporated herein by reference in its entirety, states that the greatest local average hydrophilicity of a protein, as governed by the hydrophilicity of its adjacent amino acids, correlates with a biological property of the protein

As detailed in U.S. Patent 4,554,101, the following hydrophilicity values have been assigned to amino acid residues: arginine (+3.0), lysine (+3.0), aspartate (+3.0 \pm 1), glutamate (+3.0 \pm 1), serine (+0.3), asparagine (+0.2), glutamine (+0.2), glycine (0), threonine (-0.4), proline (-0.5 \pm 1), alanine (-0.5), histidine (-0.5), cysteine (-1.0), methionine (-1.3), valine (-1.5), leucine (-1.8), isoleucine (-1.8), tyrosine (-2.3), phenylalanine (-2.5), and tryptophan (-3.4). In making such changes, the substitution of amino acids whose hydrophilicity values are within ± 2 is preferred, those which are within ± 1 are particularly preferred, and those within ± 0.5 are even more particularly preferred.

In a further aspect of the present invention, one or more of the nucleic acid molecules of the present invention differ in nucleic acid sequence from those encoding a protein or fragment thereof set forth in SEQ ID NO: 1 through SEQ ID NO: 18831 or fragment thereof due to the fact that one or more codons encoding an amino acid has been substituted for a codon that encodes a nonessential substitution of the amino acid originally encoded.

One aspect of the present invention concerns markers that include nucleic acid molecules SEQ ID NO: 1 through SEQ ID NO: 18831 or complements thereof or

fragments of either that can act as markers or other nucleic acid molecules of the present invention that can act as markers. Genetic markers of the present invention include “dominant” or “codominant” markers “Codominant markers” reveal the presence of two or more alleles (two per diploid individual) at a locus. “Dominant markers” reveal the presence of only a single allele per locus. The presence of the dominant marker phenotype (e.g., a band of DNA) is an indication that one allele is present in either the homozygous or heterozygous condition. The absence of the dominant marker phenotype (e.g. absence of a DNA band) is merely evidence that “some other” undefined allele is present. In the case of populations where individuals are predominantly homozygous and loci are predominately dimorphic, dominant and codominant markers can be equally valuable. As populations become more heterozygous and multi-allelic, codominant markers often become more informative of the genotype than dominant markers. Marker molecules can be, for example, capable of detecting polymorphisms such as single nucleotide polymorphisms (SNPs).

SNPs are single base changes in genomic DNA sequence. They occur at greater frequency and are spaced with a greater uniformity throughout a genome than other reported forms of polymorphism. The greater frequency and uniformity of SNPs means that there is greater probability that such a polymorphism will be found near or in a genetic locus of interest than would be the case for other polymorphisms. SNPs are located in protein-coding regions and noncoding regions of a genome. Some of these SNPs may result in defective or variant protein expression (e.g., as a results of mutations or defective splicing). Analysis (genotyping) of characterized SNPs can require only a plus/minus assay rather than a lengthy measurement, permitting easier automation.

SNPs can be characterized using any of a variety of methods. Such methods include the direct or indirect sequencing of the site, the use of restriction enzymes (Botstein *et al.*, *Am. J. Hum. Genet.* 32:314-331 (1980), the entirety of which is herein incorporated reference; Konieczny and Ausubel, *Plant J.* 4:403-410 (1993), the entirety

of which is herein incorporated by reference), enzymatic and chemical mismatch assays (Myers *et al.*, *Nature* 313:495-498 (1985), the entirety of which is herein incorporated by reference), allele-specific PCR (Newton *et al.*, *Nucl. Acids Res.* 17:2503-2516 (1989), the entirety of which is herein incorporated by reference; Wu *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:2757-2760 (1989), the entirety of which is herein incorporated by reference),
5 ligase chain reaction (Barany, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:189-193 (1991), the entirety of which is herein incorporated by reference), single-strand conformation polymorphism analysis (Labruno *et al.*, *Am. J. Hum. Genet.* 48: 1115-1120 (1991), the entirety of which is herein incorporated by reference), primer-directed nucleotide
10 incorporation assays (Kuppuswami *et al.*, *Proc. Natl. Acad. Sci. USA* 88:1143-1147 (1991), the entirety of which is herein incorporated by reference), dideoxy fingerprinting (Sarkar *et al.*, *Genomics* 13:441-443 (1992), the entirety of which is herein incorporated by reference), solid-phase ELISA-based oligonucleotide ligation assays (Nikiforov *et al.*,
15 *Nucl. Acids Res.* 22:4167-4175 (1994), the entirety of which is herein incorporated by reference), oligonucleotide fluorescence-quenching assays (Livak *et al.*, *PCR Methods Appl.* 4:357-362 (1995), the entirety of which is herein incorporated by reference), 5'-nuclease allele-specific hybridization TaqMan assay (Livak *et al.*, *Nature Genet.* 9:341-342 (1995), the entirety of which is herein incorporated by reference), template-directed dye-terminator incorporation (TDI) assay (Chen and Kwok, *Nucl. Acids Res.* 25:347-353
20 (1997), the entirety of which is herein incorporated by reference), allele-specific molecular beacon assay (Tyagi *et al.*, *Nature Biotech.* 16: 49-53 (1998), the entirety of which is herein incorporated by reference), PinPoint assay (Haff and Smirnov, *Genome Res.* 7: 378-388 (1997), the entirety of which is herein incorporated by reference) and dCAPS analysis (Neff *et al.*, *Plant J.* 14:387-392 (1998), the entirety of which is herein
25 incorporated by reference).

Additional markers, such as AFLP markers, RFLP markers and RAPD markers, can be utilized (Walton, *Seed World* 22-29 (July, 1993), the entirety of which is herein

incorporated by reference; Burow and Blake, *Molecular Dissection of Complex Traits*, 13-29, Paterson (ed.), CRC Press, New York (1988), the entirety of which is herein incorporated by reference). DNA markers can be developed from nucleic acid molecules using restriction endonucleases, the PCR and/or DNA sequence information. RFLP

5 markers result from single base changes or insertions/deletions. These codominant markers are highly abundant in plant genomes, have a medium level of polymorphism and are developed by a combination of restriction endonuclease digestion and Southern blotting hybridization. CAPS are similarly developed from restriction nuclease digestion but only of specific PCR products. These markers are also codominant, have a medium

10 level of polymorphism and are highly abundant in the genome. The CAPS result from single base changes and insertions/deletions.

Another marker type, RAPDs, are developed from DNA amplification with random primers and result from single base changes and insertions/deletions in plant genomes. They are dominant markers with a medium level of polymorphisms and are

15 highly abundant. AFLP markers require using the PCR on a subset of restriction fragments from extended adapter primers. These markers are both dominant and codominant are highly abundant in genomes and exhibit a medium level of polymorphism.

SSRs require DNA sequence information. These codominant markers result from

20 repeat length changes, are highly polymorphic and do not exhibit as high a degree of abundance in the genome as CAPS, AFLPs and RAPDs, SNPs also require DNA sequence information. These codominant markers result from single base substitutions. They are highly abundant and exhibit a medium of polymorphism (Rafalski *et al.*, In: *Nonmammalian Genomic Analysis*, Birren and Lai (ed.), Academic Press, San Diego,

25 CA, pp. 75-134 (1996), the entirety of which is herein incorporated by reference). It is understood that a nucleic acid molecule of the present invention may be used as a marker.

A PCR probe is a nucleic acid molecule capable of initiating a polymerase activity while in a double-stranded structure with another nucleic acid. Various methods for determining the structure of PCR probes and PCR techniques exist in the art. Computer generated searches using programs such as Primer3 (www-genome.wi.mit.edu/cgi-bin/primer/primer3.cgi), STSPipeline (www-genome.wi.mit.edu/cgi-bin/www-STSPipeline), or GeneUp (Pesole *et al.*, *BioTechniques* 25:112-123 (1998) the entirety of which is herein incorporated by reference), for example, can be used to identify potential PCR primers.

It is understood that a fragment of one or more of the nucleic acid molecules of the present invention may be a probe and specifically a PCR probe.

(b) **Protein and Peptide Molecules**

A class of agents comprises one or more of the protein or peptide molecules encoded by SEQ ID NO: 1 through SEQ ID NO:18831 or one or more of the protein or fragment thereof or peptide molecules encoded by other nucleic acid agents of the present invention. As used herein, the term "protein molecule" or "peptide molecule" includes any molecule that comprises five or more amino acids. It is well known in the art that proteins may undergo modification, including post-translational modifications, such as, but not limited to, disulfide bond formation, glycosylation, phosphorylation, or oligomerization. Thus, as used herein, the term "protein molecule" or "peptide molecule" includes any protein molecule that is modified by any biological or non-biological process. The terms "amino acid" and "amino acids" refer to all naturally occurring L-amino acids. This definition is meant to include norleucine, ornithine, homocysteine, and homoserine.

One or more of the protein or fragment of peptide molecules may be produced via chemical synthesis, or more preferably, by expression in a suitable bacterial or eukaryotic host. Suitable methods for expression are described by Sambrook, *et al.*, (In: *Molecular*

Cloning, A Laboratory Manual, 2nd Edition, Cold Spring Harbor Press, Cold Spring Harbor, New York (1989)), or similar texts.

A "protein fragment" is a peptide or polypeptide molecule whose amino acid sequence comprises a subset of the amino acid sequence of that protein. A protein or fragment thereof that comprises one or more additional peptide regions not derived from that protein is a "fusion" protein. Such molecules may be derivatized to contain carbohydrate or other moieties (such as keyhole limpet hemocyanin, etc.). Fusion protein or peptide molecule of the present invention are preferably produced via recombinant means.

Another class of agents comprise protein or peptide molecules encoded by SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof or, fragments or fusions thereof in which non-essential, or not relevant, amino acid residues have been added, replaced, or deleted. An example of such a homologue is the homologue protein of all non-maize plant species, including but not limited to alfalfa, *Arabidopsis*, barley, *Brassica*, broccoli, cabbage, citrus, cotton, garlic, oat, oilseed rape, onion, canola, flax, an ornamental plant, pea, peanut, pepper, potato, rice, rye, sorghum, soybean, strawberry, sugarcane, sugarbeet, tomato, wheat, poplar, pine, fir, eukalyptus, apple, lettuce, peas, lentils, grape, banana, tea, turf grasses, etc. Particularly preferred non-maize plants to utilize for the isolation of homologues would include alfalfa, *Arabidopsis*, barley, cotton, oat, oilseed rape, rice, canola, ornamentals, soybean, sugarcane, sugarbeet, tomato, potato, wheat, and turf grasses. Such a homologue can be obtained by any of a variety of methods. Most preferably, as indicated above, one or more of the disclosed sequences (SEQ ID NO: 1 through SEQ ID NO:18831 or complements thereof) will be used to define a pair of primers that may be used to isolate the homologue-encoding nucleic acid molecules from any desired species. Such molecules can be expressed to yield homologues by recombinant means.

(c) Antibodies

One aspect of the present invention concerns antibodies, single-chain antigen binding molecules, or other proteins that specifically bind to one or more of the protein or peptide molecules of the present invention and their homologues, fusions or fragments. Such antibodies may be used to quantitatively or qualitatively detect the protein or peptide molecules of the present invention. As used herein, an antibody or peptide is said to "specifically bind" to a protein or peptide molecule of the present invention if such binding is not competitively inhibited by the presence of non-related molecules.

Nucleic acid molecules that encode all or part of the protein of the present invention can be expressed, via recombinant means, to yield protein or peptides that can in turn be used to elicit antibodies that are capable of binding the expressed protein or peptide. Such antibodies may be used in immunoassays for that protein. Such protein-encoding molecules, or their fragments may be a "fusion" molecule (i.e., a part of a larger nucleic acid molecule) such that, upon expression, a fusion protein is produced. It is understood that any of the nucleic acid molecules of the present invention may be expressed, via recombinant means, to yield proteins or peptides encoded by these nucleic acid molecules.

The antibodies that specifically bind proteins and protein fragments of the present invention may be polyclonal or monoclonal, and may comprise intact immunoglobulins, or antigen binding portions of immunoglobulins (such as $F(ab')$, $F(ab')_2$) fragments, or single-chain immunoglobulins producible, for example, via recombinant means). It is understood that practitioners are familiar with the standard resource materials which describe specific conditions and procedures for the construction, manipulation and isolation of antibodies (see, for example, Harlow and Lane, In *Antibodies: A Laboratory Manual*, Cold Spring Harbor Press, Cold Spring Harbor, New York (1988), the entirety of which is herein incorporated by reference).

Murine monoclonal antibodies are particularly preferred. BALB/c mice are preferred for this purpose, however, equivalent strains may also be used. The animals are

preferably immunized with approximately 25 µg of purified protein (or fragment thereof) that has been emulsified a suitable adjuvant (such as TiterMax adjuvant (Vaxcel, Norcross, GA)). Immunization is preferably conducted at two intramuscular sites, one intraperitoneal site, and one subcutaneous site at the base of the tail. An additional i.v. injection of approximately 25 µg of antigen is preferably given in normal saline three weeks later. After approximately 11 days following the second injection, the mice may be bled and the blood screened for the presence of anti-protein or peptide antibodies. Preferably, a direct binding Enzyme-Linked Immunoassay (ELISA) is employed for this purpose.

More preferably, the mouse having the highest antibody titer is given a third i.v. injection of approximately 25 µg of the same protein or fragment. The splenic leukocytes from this animal may be recovered 3 days later, and are then permitted to fuse, most preferably, using polyethylene glycol, with cells of a suitable myeloma cell line (such as, for example, the P3X63Ag8.653 myeloma cell line). Hybridoma cells are selected by culturing the cells under "HAT" (hypoxanthine-aminopterin-thymine) selection for about one week. The resulting clones may then be screened for their capacity to produce monoclonal antibodies ("mAbs), preferably by direct ELISA.

In one embodiment, anti-protein or peptide monoclonal antibodies are isolated using a fusion of a protein, protein fragment, or peptide of the present invention, or conjugate of a protein, protein fragment, or peptide of the present invention, as immunogens. Thus, for example, a group of mice can be immunized using a fusion protein emulsified in Freund's complete adjuvant (e.g. approximately 50 µg of antigen per immunization). At three week intervals, an identical amount of antigen is emulsified in Freund's incomplete adjuvant and used to immunize the animals. Ten days following the third immunization, serum samples are taken and evaluated for the presence of antibody. If antibody titers are too low, a fourth booster can be employed. Polysera capable of binding the protein or peptide can also be obtained using this method.

In a preferred procedure for obtaining monoclonal antibodies, the spleens of the above-described immunized mice are removed, disrupted, and immune splenocytes are isolated over a ficoll gradient. The isolated splenocytes are fused, using polyethylene glycol with BALB/c-derived HGPRT (hypoxanthine guanine phosphoribosyl transferase) deficient P3x63xAg8.653 plasmacytoma cells. The fused cells are plated into 96-well microtiter plates and screened for hybridoma fusion cells by their capacity to grow in culture medium supplemented with hypoxanthine, aminopterin and thymidine for approximately 2-3 weeks.

Hybridoma cells that arise from such incubation are preferably screened for their capacity to produce an immunoglobulin that binds to a protein of interest. An indirect ELISA may be used for this purpose. In brief, the supernatants of hybridomas are incubated in microtiter wells that contain immobilized protein. After washing, the titer of bound immunoglobulin can be determined using, for example, a goat anti-mouse antibody conjugated to horseradish peroxidase. After additional washing, the amount of immobilized enzyme is determined (for example through the use of a chromogenic substrate). Such screening is performed as quickly as possible after the identification of the hybridoma in order to ensure that a desired clone is not overgrown by non-secreting neighbors. Desirably, the fusion plates are screened several times since the rates of hybridoma growth vary. In a preferred sub-embodiment, a different antigenic form of immunogen may be used to screen the hybridoma. Thus, for example, the splenocytes may be immunized with one immunogen, but the resulting hybridomas can be screened using a different immunogen. It is understood that any of the protein or peptide molecules of the present invention may be used to raise antibodies.

As discussed below, such antibody molecules or their fragments may be used for diagnostic purposes. Where the antibodies are intended for diagnostic purposes, it may be desirable to derivatize them, for example with a ligand group (such as biotin) or a detectable marker group (such as a fluorescent group, a radioisotope or an enzyme).

The ability to produce antibodies that bind the protein or peptide molecules of the present invention permits the identification of mimetic compounds of those molecules. A “mimetic compound” is a compound that is not that compound, or a fragment of that compound, but which nonetheless exhibits an ability to specifically bind to antibodies directed against that compound.

It is understood that any of the agents of the present invention can be substantially purified and/or be biologically active and/or recombinant.

Uses of the Agents of the Invention

The nucleic acid molecules and fragments thereof of the present invention are generated from the cDNA library, LIB3061, prepared from *Zea mays* endosperms. This tissue is harvested from 32 DAP plants beyond the V10 stage grown under greenhouse conditions. Libraries from this tissue can enable the acquisition of a variety of agronomically significant genes involved in the synthesis and catabolism of commercially important traits. The ESTs of the present invention can enable the acquisition of, including but not limited to genes that regulate protein, oils, amino acids, sterols, minerals, isoflavones, saponins, vitamins, tocopherols, antinutrient components, carbohydrates, starch metabolism and seed regulatory elements. Such genes are associated with plant growth, quality and yield, and could also serve as links in important developmental, metabolic, and catabolic pathways.

The nucleic acid molecules and fragments thereof of the present invention are generated from the cDNA library, LIB3077, prepared from *Zea mays* kernels from immature ear tissue, which is harvested from eight week old plants grown in a green house. Libraries from this tissue can enable the acquisition of a variety of agronomically significant genes involved in the synthesis and catabolism of commercially important traits. The ESTs of the present invention can enable the acquisition of, including but are not limited to, non-regulatory genes and genes that regulate protein, oils, amino acids, sterols, minerals, isoflavones, saponins, vitamins, tocopherols, antinutrient components,

carbohydrates, starch metabolism and seed regulatory elements. Such genes are associated with plant growth, quality and yield, and could also serve as links in important developmental, metabolic, and catabolic pathways.

The nucleic acid molecules and fragments thereof of the present invention are generated from the cDNA library, LIB36, prepared from leaves harvested from V8 stage maize plants. Leaves are the carbohydrate factories of crop plants, therefore, the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to genes that are necessary for the interception and transformation of light energy via photosynthesis linked with plant growth, quality, and yield. Genes isolated utilizing the disclosed ESTs would also be critical in pathways including but not limited to a pathway such as nitrogen metabolism linked to fruiting and mobilization and distribution of nitrogen.

The nucleic acid molecules and fragments thereof of the present invention are generated from the normalized cDNA library, LIB83, prepared from leaves harvested from V8 stage maize plants. Leaves are the carbohydrate factories of crop plants, therefore, the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to genes that are necessary for the interception and transformation of light energy via photosynthesis linked with plant growth, quality, and yield. Genes isolated utilizing the disclosed ESTs would also be critical in pathways including but not limited to a pathway such as nitrogen metabolism linked to fruiting and mobilization and distribution of nitrogen.

The nucleic acid molecules and fragments thereof of the present invention are generated from the normalized cDNA library, LIB84, prepared from leaves harvested from V8 stage maize plants. Leaves are the carbohydrate factories of crop plants, therefore, the ESTs of the present invention will find great use in the isolation of a variety of agronomically significant genes, including but not limited to genes that are necessary for the interception and transformation of light energy via photosynthesis linked with

plant growth, quality, and yield. Genes isolated utilizing the disclosed ESTs would also be involved in pathways including but not limited to a pathway such as nitrogen metabolism linked to fruiting and mobilization and distribution of nitrogen.

Nucleic acid molecules and fragments thereof of the present invention may be employed to obtain other nucleic acid molecules. Such molecules include the nucleic acid molecules of other plants or other organisms (*e.g.*, alfalfa, rice, potato, cotton, oat, rye, barley, maize, wheat, *Arabidopsis*, *Brassica*, etc.) including the nucleic acid molecules that encode, in whole or in part, protein homologues of other plant species or other organisms, and sequences of genetic elements such as promoters and transcriptional regulatory elements. Such molecules can be readily obtained by using the above-described nucleic acid molecules or fragments thereof to screen cDNA or genomic libraries obtained from such plant species. Methods for forming such libraries are well known in the art. Such homologue molecules may differ in their nucleotide sequences from those found in one or more of SEQ ID NO:1 through SEQ ID NO:18831 or complements thereof because complete complementarity is not needed for stable hybridization. The nucleic acid molecules of the present invention therefore also include molecules that, although capable of specifically hybridizing with the nucleic acid molecules may lack "complete complementarity."

Any of a variety of methods may be used to obtain one or more of the above-described nucleic acid molecules (Zamechik *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 83:4143-4146 (1986), the entirety of which is herein incorporated by reference; Goodchild *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:5507-5511 (1988), the entirety of which is herein incorporated by reference; Wickstrom *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:1028-1032 (1988), the entirety of which is herein incorporated by reference; Holt, *et al.*, *Molec. Cell. Biol.* 8:963-973 (1988), the entirety of which is herein incorporated by reference; Gerwitz, *et al.*, *Science* 242:1303-1306 (1988), the entirety of which is herein incorporated by reference; Anfossi, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)*

86:3379-3383 (1989), the entirety of which is herein incorporated by reference; Becker, *et al.*, *EMBO J.* 8:3685-3691 (1989); the entirety of which is herein incorporated by reference). Automated nucleic acid synthesizers may be employed for this purpose. In lieu of such synthesis, the disclosed nucleic acid molecules may be used to define a pair of primers that can be used with the polymerase chain reaction (Mullis, *et al.*, *Cold Spring Harbor Symp. Quant. Biol.* 51:263-273 (1986); Erlich *et al.*, EP 50,424; EP 84,796, EP 258,017, EP 237,362; Mullis, EP 201,184; Mullis *et al.*, US 4,683,202; Erlich, US 4,582,788; and Saiki, R. *et al.*, US 4,683,194, all of which are hereby incorporated by reference in their entirety) to amplify and obtain any desired nucleic acid molecule or fragment.

Promoter sequence(s) and other genetic elements including but not limited to transcriptional regulatory elements associated with one or more of the disclosed nucleic acid sequences can also be obtained using the disclosed nucleic acid sequences provided herein.

In one embodiment, such sequences are obtained by incubating EST nucleic acid molecules or preferably fragments thereof with members of genomic libraries (*e.g.* maize and soybean) and recovering clones that hybridize to the EST nucleic acid molecule or fragment thereof. In a second embodiment, methods of "chromosome walking," or inverse PCR may be used to obtain such sequences (Frohman, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 85:8998-9002 (1988); Ohara, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86: 5673-5677 (1989); Pang *et al.*, *Biotechniques*, 22(6); 1046-1048 (1977); Huang *et al.*, *Methods Mol. Biol.* 69: 89-96 (1977); Hartl *et al.*, *Methods Mol. Biol.* 58: 293-301 (1996), all of which are hereby incorporated by reference in their entirety). In one embodiment, the disclosed nucleic acid molecules are used to identify cDNAs whose analogous genes contain promoters with desirable expression patterns. The nucleic acid molecules isolated from the library of the present invention are used to isolate promoters of tissue-enhanced, tissue-specific, developmentally- or environmentally-regulated

expression profiles. Isolation and functional analysis of the 5' flanking promoter sequences of these genes from genomic libraries, for example, using genomic screening methods and PCR techniques would result in the isolation of useful promoters and transcriptional regulatory elements. These methods are known to those of skill in the art and have been described (See for example Birren *et al.*, *Genome Analysis: Analyzing DNA*, 1, (1997), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., the entirety of which is herein incorporated by reference).

Promoters obtained utilizing the nucleic acid molecules of the present invention could also be modified to affect their control characteristics. Examples of such modifications would include but are not limited to enhancer sequences as reported by Kay *et al.*, *Science* 236:1299 (1987), herein incorporated by reference in its entirety. Such genetic elements could be used to enhance gene expression of new and existing traits for crop improvements.

The nucleic acid molecules of the present invention may be used to isolate promoters of tissue enhanced. tissue specific, cell-specific, cell -type, developmentally or environmentally regulated expression profiles. Isolation and functional analysis of the 5' flanking promoter sequences of these genes from genomic libraries, for example, using genomic screening methods and PCR techniques would result in the isolation of useful promoters and transcriptional regulatory elements. These methods are known to those of skill in the art and have been described (See, for example, Birren *et. al.*, *Genome Analysis: Analyzing DNA*, 1, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y. (1997), the entirety of which is herein incorporated by reference). Promoters obtained utilizing the nucleic acid molecules of the present invention could also be modified to affect their control characteristics. Examples of such modifications would include but are not limited to enhancer sequences as reported by Kay, *et al Science* 236:1299 (1987), herein incorporated reference in its entirety. Such genetic elements

could be used to enhance gene expression of new and existing traits for crop improvements.

In an aspect of the present invention, one or more of the nucleic molecules of the present invention are used to determine whether a plant (preferably maize) has a mutation affecting the level (i.e., the concentration of mRNA in a sample, etc.) or pattern (i.e., the kinetics of expression, rate of decomposition, stability profile, etc.) of the expression encoded in part or whole by one or more of the nucleic acid molecules of the present invention (collectively, the "Expression Response" of a cell or tissue). As used herein, the Expression Response manifested by a cell or tissue is said to be "altered" if it differs from the Expression Response of cells or tissues of plants not exhibiting the phenotype. To determine whether a Expression Response is altered, the Expression Response manifested by the cell or tissue of the plant exhibiting the phenotype is compared with that of a similar cell or tissue sample of a plant not exhibiting the phenotype. As will be appreciated, it is not necessary to re-determine the Expression Response of the cell or tissue sample of plants not exhibiting the phenotype each time such a comparison is made; rather, the Expression Response of a particular plant may be compared with previously obtained values of normal plants. As used herein, the phenotype of the organism is any of one or more characteristics of an organism (e.g. disease resistance, pest tolerance, environmental tolerance, male sterility, yield, quality improvements, etc.). A change in genotype or phenotype may be transient or permanent. Also as used herein, a tissue sample is any sample that comprises more than one cell. In a preferred aspect, a tissue sample comprises cells that share a common characteristic (e.g. derived from leaf, root, or pollen etc).

In one sub-aspect, such an analysis is conducted by determining the presence and/or identity of polymorphism(s) by one or more of the nucleic acid molecules of the present invention and more specifically, one or more of the EST nucleic acid molecules

or fragments thereof which are associated with phenotype, or a predisposition to phenotype.

Any of a variety of molecules can be used to identify such polymorphism(s). In one embodiment, one or more of the EST nucleic acid molecules (or a sub-fragment thereof) may be employed as a marker nucleic acid molecule to identify such polymorphism(s). Alternatively, such polymorphisms can be detected through the use of a marker nucleic acid molecule or a marker protein that is genetically linked to (i.e., a polynucleotide that co-segregates with) such polymorphism(s).

In an alternative embodiment, such polymorphisms can be detected through the use of a marker nucleic acid molecule that is physically linked to such polymorphism(s). For this purpose, marker nucleic acid molecules comprising a nucleotide sequence of a polynucleotide located within 1 mb of the polymorphism(s), and more preferably within 100 kb of the polymorphism(s), and most preferably within 10 kb of the polymorphism(s) can be employed.

The genomes of animals and plants naturally undergo spontaneous mutation in the course of their continuing evolution (Gusella, *Ann. Rev. Biochem.* 55:831-854 (1986)). A "polymorphism" is a variation or difference in the sequence of the gene or its flanking regions that arises in some of the members of a species. The variant sequence and the "original" sequence co-exist in the species' population. In some instances, such co-existence is in stable or quasi-stable equilibrium.

A polymorphism is thus said to be "allelic," in that, due to the existence of the polymorphism, some members of a species may have the original sequence (i.e., the original "allele") whereas other members may have the variant sequence (i.e., the variant "allele"). In the simplest case, only one variant sequence may exist, and the polymorphism is thus said to be di-allelic. In other cases, the species' population may contain multiple alleles, and the polymorphism is termed tri-allelic, etc. A single gene

may have multiple different unrelated polymorphisms. For example, it may have a diallelic polymorphism at one site, and a multi-allelic polymorphism at another site.

The variation that defines the polymorphism may range from a single nucleotide variation to the insertion or deletion of extended regions within a gene. In some cases, the DNA sequence variations are in regions of the genome that are characterized by short tandem repeats (STRs) that include tandem di- or tri-nucleotide repeated motifs of nucleotides. Polymorphisms characterized by such tandem repeats are referred to as "variable number tandem repeat" ("VNTR") polymorphisms. VNTRs have been used in identity analysis (Weber, U.S. Patent 5,075,217; Armour, *et al.*, *FEBS Lett.* 307:113-115 (1992); Jones, *et al.*, *Eur. J. Haematol.* 39:144-147 (1987); Horn, *et al.*, PCT Application WO91/14003; Jeffreys, European Patent Application 370,719; Jeffreys, U.S. Patent 5,699,082; Jeffreys, *et al.*, *Amer. J. Hum. Genet.* 39:11-24 (1986); Jeffreys, *et al.*, *Nature* 316:76-79 (1985); Gray, *et al.*, *Proc. R. Acad. Soc. Lond.* 243:241-253 (1991); Moore, *et al.*, *Genomics* 10:654-660 (1991); Jeffreys, *et al.*, *Anim. Genet.* 18:1-15 (1987); Hillel, *et al.*, *Anim. Genet.* 20:145-155 (1989); Hillel, *et al.*, *Genet.* 124:783-789 (1990), all of which are herein incorporated by reference in their entirety).

The detection of polymorphic sites in a sample of DNA may be facilitated through the use of nucleic acid amplification methods. Such methods specifically increase the concentration of polynucleotides that span the polymorphic site, or include that site and sequences located either distal or proximal to it. Such amplified molecules can be readily detected by gel electrophoresis or other means.

The most preferred method of achieving such amplification employs the polymerase chain reaction ("PCR") (Mullis, *et al.*, *Cold Spring Harbor Symp. Quant. Biol.* 51:263-273 (1986); Erlich, *et al.*, European Patent Appln. 50,424; European Patent Appln. 84,796, European Patent Application 258,017, European Patent Appln. 237,362; Mullis, European Patent Appln. 201,184; Mullis, *et al.*, U.S. Patent No. 4,683,202; Erlich, U.S. Patent No. 4,582,788; and Saiki, *et al.*, U.S. Patent No. 4,683,194, all of

which are herein incorporated by reference), using primer pairs that are capable of hybridizing to the proximal sequences that define a polymorphism in its double-stranded form.

In lieu of PCR, alternative methods, such as the "Ligase Chain Reaction" ("LCR") may be used (Barany, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:189-193 (1991), the entirety of which is herein incorporated by reference). LCR uses two pairs of oligonucleotide probes to exponentially amplify a specific target. The sequences of each pair of oligonucleotides is selected to permit the pair to hybridize to abutting sequences of the same strand of the target. Such hybridization forms a substrate for a template-dependent ligase. As with PCR, the resulting products thus serve as a template in subsequent cycles and an exponential amplification of the desired sequence is obtained.

LCR can be performed with oligonucleotides having the proximal and distal sequences of the same strand of a polymorphic site. In one embodiment, either oligonucleotide will be designed to include the actual polymorphic site of the polymorphism. In such an embodiment, the reaction conditions are selected such that the oligonucleotides can be ligated together only if the target molecule either contains or lacks the specific nucleotide that is complementary to the polymorphic site present on the oligonucleotide. Alternatively, the oligonucleotides may be selected such that they do not include the polymorphic site (see, Segev, PCT Application WO 90/01069, the entirety of which is herein incorporated by reference).

The "Oligonucleotide Ligation Assay" ("OLA") may alternatively be employed (Landegren, *et al.*, *Science* 241:1077-1080 (1988), the entirety of which is herein incorporated by reference). The OLA protocol uses two oligonucleotides which are designed to be capable of hybridizing to abutting sequences of a single strand of a target. OLA, like LCR, is particularly suited for the detection of point mutations. Unlike LCR, however, OLA results in "linear" rather than exponential amplification of the target sequence.

Nickerson, *et al.* have described a nucleic acid detection assay that combines attributes of PCR and OLA (Nickerson, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:8923-8927 (1990), the entirety of which is herein incorporated by reference). In this method, PCR is used to achieve the exponential amplification of target DNA, which is then
 5 detected using OLA. In addition to requiring multiple, and separate, processing steps, one problem associated with such combinations is that they inherit all of the problems associated with PCR and OLA.

Schemes based on ligation of two (or more) oligonucleotides in the presence of nucleic acid having the sequence of the resulting "di-oligonucleotide", thereby amplifying
 10 the di-oligonucleotide, are also known (Wu, *et al.*, *Genomics* 4:560 (1989), the entirety of which is herein incorporated by reference), and may be readily adapted to the purposes of the present invention.

Other known nucleic acid amplification procedures, such as allele-specific oligomers, branched DNA technology, transcription-based amplification systems, or
 15 isothermal amplification methods may also be used to amplify and analyze such polymorphisms (Malek, *et al.*, U.S. Patent 5,130,238; Davey, *et al.*, European Patent Application 329,822; Schuster *et al.*, U.S. Patent 5,169,766; Miller, *et al.*, PCT Application WO 89/06700; Kwoh, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:1173-1177 (1989); Gingeras, *et al.*, PCT Application WO 88/10315; Walker, *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:392-396 (1992), all of which are herein incorporated by reference in their
 20 entirety).

The identification of a polymorphism can be determined in a variety of ways. By correlating the presence or absence of it in a plant with the presence or absence of a phenotype, it is possible to predict the phenotype of that plant. If a polymorphism creates
 25 or destroys a restriction endonuclease cleavage site, or if it results in the loss or insertion of DNA (e.g., a VNTR polymorphism), it will alter the size or profile of the DNA fragments that are generated by digestion with that restriction endonuclease. As such,

individuals that possess a variant sequence can be distinguished from those having the original sequence by restriction fragment analysis. Polymorphisms that can be identified in this manner are termed "restriction fragment length polymorphisms" ("RFLPs").

RFLPs have been widely used in human and plant genetic analyses (Glassberg, UK

- 5 Patent Application 2135774; Skolnick, *et al.*, *Cytogen. Cell Genet.* 32:58-67 (1982); Botstein, *et al.*, *Ann. J. Hum. Genet.* 32:314-331 (1980); Fischer, *et al.* (PCT Application WO90/13668); Uhlen, PCT Application WO90/11369).

Polymorphisms can also be identified by Single Strand Conformation

Polymorphism (SSCP) analysis. The SSCP technique is a method capable of identifying

- 10 most sequence variations in a single strand of DNA, typically between 150 and 250 nucleotides in length (Elles, *Methods in Molecular Medicine: Molecular Diagnosis of Genetic Diseases*, Humana Press (1996), the entirety of which is herein incorporated by reference); Orita *et al.*, *Genomics* 5: 874-879 (1989), the entirety of which is herein incorporated by reference). Under denaturing conditions a single strand of DNA will
- 15 adopt a conformation that is uniquely dependent on its sequence conformation. This conformation usually will be different, even if only a single base is changed. Most conformations have been reported to alter the physical configuration or size sufficiently to be detectable by electrophoresis. A number of protocols have been described for SSCP including, but not limited to Lee *et al.*, *Anal. Biochem.* 205: 289-293 (1992), the entirety
- 20 of which is herein incorporated by reference; Suzuki *et al.*, *Anal. Biochem.* 192: 82-84 (1991), the entirety of which is herein incorporated by reference; Lo *et al.*, *Nucleic Acids Research* 20: 1005-1009 (1992), the entirety of which is herein incorporated by reference; Sarkar *et al.*, *Genomics* 13: 441-443 (1992), the entirety of which is herein incorporated by reference). It is understood that one or more of the nucleic acids of the present
- 25 invention, may be utilized as markers or probes to detect polymorphisms by SSCP analysis.

Polymorphisms may also be found using a DNA fingerprinting technique called amplified fragment length polymorphism (AFLP), which is based on the selective PCR amplification of restriction fragments from a total digest of genomic DNA to profile that DNA. Vos, *et al.*, *Nucleic Acids Res.* 23:4407-4414 (1995), the entirety of which is
 5 herein incorporated by reference. This method allows for the specific co-amplification of high numbers of restriction fragments, which can be visualized by PCR without knowledge of the nucleic acid sequence.

AFLP employs basically three steps. Initially, a sample of genomic DNA is cut with restriction enzymes and oligonucleotide adapters are ligated to the restriction
 10 fragments of the DNA. The restriction fragments are then amplified using PCR by using the adapter and restriction sequence as target sites for primer annealing. The selective amplification is achieved by the use of primers that extend into the restriction fragments, amplifying only those fragments in which the primer extensions match the nucleotide flanking the restriction sites. These amplified fragments are then visualized on a
 15 denaturing polyacrylamide gel.

AFLP analysis has been performed on *Salix* (Beismann, *et al.*, *Mol. Ecol.* 6:989-993 (1997), the entirety of which is herein incorporated by reference); *Acinetobacter* (Janssen, *et al.*, *Int. J. Syst. Bacteriol* 47:1179-1187 (1997), the entirety of which is herein incorporated by reference), *Aeromonas popoffi* (Huys, *et al.*, *Int. J. Syst. Bacteriol.*
 20 47:1165-1171 (1997), the entirety of which is herein incorporated by reference), rice (McCouch, *et al.*, *Plant Mol. Biol.* 35:89-99 (1997), the entirety of which is herein incorporated by reference); Nandi, *et al.*, *Mol. Gen. Genet.* 255:1-8 (1997); Cho, *et al.*, *Genome* 39:373-378 (1996), herein incorporated by reference), barley (*Hordeum vulgare*)(Simons, *et al.*, *Genomics* 44:61-70 (1997), the entirety of which is herein
 25 incorporated by reference; Waugh, *et al.*, *Mol. Gen. Genet.* 255:311-321 (1997), the entirety of which is herein incorporated by reference; Qi, *et al.*, *Mol. Gen Genet.* 254:330-336 (1997), the entirety of which is herein incorporated by reference; Becker, *et al.*, *Mol.*

Gen. Genet. 249:65-73 (1995), the entirety of which is herein incorporated by reference),
 potato (Van der Voort, *et al.*, *Mol. Gen. Genet.* 255:438-447 (1997), the entirety of which
 is herein incorporated by reference; Meksem, *et al.*, *Mol. Gen. Genet.* 249:74-81 (1995),
 the entirety of which is herein incorporated by reference), *Phytophthora infestans* (Van
 5 der Lee, *et al.*, *Fungal Genet. Biol.* 21:278-291 (1997), the entirety of which is herein
 incorporated by reference), *Bacillus anthracis* (Keim, *et al.*, *J. Bacteriol.* 179:818-824
 (1997)), *Astragalus cremnophylax* (Travis, *et al.*, *Mol. Ecol.* 5:735-745 (1996), the
 entirety of which is herein incorporated by reference), *Arabidopsis* (Cnops, *et al.*, *Mol.*
Gen. Genet. 253:32-41 (1996), the entirety of which is herein incorporated by reference),
 10 *Escherichia coli* (Lin, *et al.*, *Nucleic Acids Res.* 24:3649-3650 (1996), the entirety of
 which is herein incorporated by reference), *Aeromonas* (Huys, *et al.*, *Int. J. Syst.*
Bacteriol. 46:572-580 (1996), the entirety of which is herein incorporated by reference),
 nematode (Folkertsma, *et al.*, *Mol. Plant Microbe Interact.* 9:47-54 (1996), the entirety of
 which is herein incorporated by reference), tomato (Thomas, *et al.*, *Plant J.* 8:785-794
 15 (1995), the entirety of which is herein incorporated by reference), and human (Latorra, *et*
al., *PCR Methods Appl.* 3:351-358 (1994)). AFLP analysis has also been used for
 fingerprinting mRNA (Money, *et al.*, *Nucleic Acids Res.* 24:2616-2617 (1996), the
 entirety of which is herein incorporated by reference; Bachem, *et al.*, *Plant J.* 9:745-753
 (1996), the entirety of which is herein incorporated by reference). It is understood that
 20 one or more of the nucleic acids of the present invention, may be utilized as markers or
 probes to detect polymorphisms by AFLP analysis for fingerprinting mRNA.

Polymorphisms may also be found using random amplified polymorphic DNA
 (RAPD) (Williams *et al.*, *Nucl. Acids Res.* 18: 6531-6535 (1990), the entirety of which is
 herein incorporated by reference) and cleaveable amplified polymorphic sequences
 25 (CAPS) (Lyamichev *et al.*, *Science* 260: 778-783 (1993), the entirety of which is herein
 incorporated by reference). It is understood that one or more of the nucleic acids of the

present invention, may be utilized as markers or probes to detect polymorphisms by RAPD or CAPS analysis.

Polymorphisms are useful, through linkage analysis, to define the genetic distances or physical distances between polymorphic traits. A physical map or ordered
 5 array of genomic DNA fragments in the desired region containing the gene may be used to characterize and isolate genes corresponding to desirable traits. For this purpose, yeast artificial chromosomes (YACs), bacterial artificial chromosomes (BACs), and cosmids are appropriate vectors for cloning large segments of DNA molecules. Although fewer clones are needed to make a contig for a specific genomic region by using YACs (Agyare
 10 *et al.*, *Genome Res.* 7: 1-9 (1997), the entirety of which is herein incorporated by reference; James *et al.*, *Genomics* 32: 425-430 (1996), the entirety of which is herein incorporated by reference), chimerism in the inserted DNA fragment can arise. Cosmids are convenient for handling smaller-size DNA molecules and may be used for transformation in developing transgenic plants. BACs also carry DNA fragments and are
 15 less prone to chimerism.

Through genetic mapping, a fine scale linkage map can be developed using DNA markers and, then, a genomic DNA library of large-sized fragments can be screened with molecular markers linked to the desired trait. Molecular markers are advantageous for agronomic traits that are otherwise difficult to tag, such as resistance to pathogens, insects
 20 and nematodes, tolerance to abiotic stress, quality parameters and quantitative traits such as high yield potential.

The essential requirements for marker-assisted selection in a plant breeding program are: (1) the marker(s) should co-segregate or be closely linked with the desired trait; (2) an efficient means of screening large populations for the molecular marker(s)
 25 should be available; and (3) the screening technique should have high reproducibility across laboratories and preferably be economical to use and be user-friendly.

The genetic linkage of marker molecules can be established by a gene mapping model such as, without limitation, the flanking marker model reported by Lander and Botstein, *Genetics* 121:185-199 (1989) and the interval mapping, based on maximum likelihood methods described by Lander and Botstein, *Genetics* 121:185-199 (1989) and implemented in the software package MAPMAKER/QTL (Lincoln and Lander, *Mapping Genes Controlling Quantitative Traits Using MAPMAKER/QTL*, Whitehead Institute for Biomedical Research, Massachusetts, (1990). Additional software includes Qgene, Version 2.23 (1996), Department of Plant Breeding and Biometry, 266 Emerson Hall, Cornell University, Ithaca, NY, the manual of which is herein incorporated by reference in its entirety). Use of Qgene software is a particularly preferred approach.

A maximum likelihood estimate (MLE) for the presence of a marker is calculated, together with an MLE assuming no QTL effect, to avoid false positives. A \log_{10} of an odds ratio (LOD) is then calculated as: $\text{LOD} = \log_{10}(\text{MLE for the presence of a QTL} / \text{MLE given no linked QTL})$.

The LOD score essentially indicates how much more likely the data are to have arisen assuming the presence of a QTL than in its absence. The LOD threshold value for avoiding a false positive with a given confidence, say 95%, depends on the number of markers and the length of the genome. Graphs indicating LOD thresholds are set forth in Lander and Botstein, *Genetics* 121:185-199 (1989) the entirety of which is herein incorporated by reference and further described by Arús and Moreno-González, *Plant Breeding*, Hayward *et al.*, (eds.) Chapman & Hall, London, pp. 314-331 (1993), the entirety of which is herein incorporated by reference.

Additional models can be used. Many modifications and alternative approaches to interval mapping have been reported, including the use of non-parametric methods (Kruglyak and Lander, *Genetics* 139:1421-1428 (1995), the entirety of which is herein incorporated by reference). Multiple regression methods or models can be also be used, in which the trait is regressed on a large number of markers (Jansen, *Biometrics in Plant*

Breeding, van Oijen and Jansen (eds.), Proceedings of the Ninth Meeting of the Eucarpia Section Biometrics in Plant Breeding, The Netherlands, pp. 116-124 (1994); Weber and Wricke, *Advances in Plant Breeding*, Blackwell, Berlin, 16 (1994), both of which is herein incorporated by reference in their entirety). Procedures combining interval

5 mapping with regression analysis, whereby the phenotype is regressed onto a single putative QTL at a given marker interval and at the same time onto a number of markers that serve as 'cofactors,' have been reported by Jansen and Stam, *Genetics* 136:1447-1455 (1994), the entirety of which is herein incorporated by reference and Zeng, *Genetics* 136:1457-1468 (1994) the entirety of which is herein incorporated by reference.

10 Generally, the use of cofactors reduces the bias and sampling error of the estimated QTL positions (Utz and Melchinger, *Biometrics in Plant Breeding*, van Oijen and Jansen (eds.) Proceedings of the Ninth Meeting of the Eucarpia Section Biometrics in Plant Breeding, The Netherlands, pp.195-204 (1994), the entirety of which is herein incorporated by reference, thereby improving the precision and efficiency of QTL mapping (Zeng,

15 *Genetics* 136:1457-1468 (1994)). These models can be extended to multi-environment experiments to analyze genotype-environment interactions (Jansen *et al.*, *Theo. Appl. Genet.* 91:33-37 (1995), the entirety of which is herein incorporated by reference).

Selection of an appropriate mapping population is important to map construction. The choice of an appropriate mapping population depends on the type of marker systems

20 employed (Tanksley *et al.*, *Molecular mapping plant chromosomes. Chromosome structure and function: Impact of new concepts*, Gustafson and Appels (eds.), Plenum Press, New York, pp 157-173 (1988), the entirety of which is herein incorporated by reference). Consideration must be given to the source of parents (adapted vs. exotic) used in the mapping population. Chromosome pairing and recombination rates can be severely

25 disturbed (suppressed) in wide crosses (adapted x exotic) and generally yield greatly reduced linkage distances. Wide crosses will usually provide segregating populations

with a relatively large array of polymorphisms when compared to progeny in a narrow cross (adapted x adapted).

An F_2 population is the first generation of selfing after the hybrid seed is produced. Usually a single F_1 plant is selfed to generate a population segregating for all the genes in Mendelian (1:2:1) fashion. Maximum genetic information is obtained from a completely classified F_2 population using a codominant marker system (Mather, *Measurement of Linkage in Heredity*, Methuen and Co., (1938), the entirety of which is herein incorporated by reference). In the case of dominant markers, progeny tests (e.g. F_3 , BCF_2) are required to identify the heterozygotes, thus making it equivalent to a completely classified F_2 population. However, this procedure is often prohibitive because of the cost and time involved in progeny testing. Progeny testing of F_2 individuals is often used in map construction where phenotypes do not consistently reflect genotype (e.g. disease resistance) or where trait expression is controlled by a QTL. Segregation data from progeny test populations (e.g. F_3 or BCF_2) can be used in map construction. Marker-assisted selection can then be applied to cross progeny based on marker-trait map associations (F_2 , F_3), where linkage groups have not been completely disassociated by recombination events (i.e., maximum disequilibrium).

Recombinant inbred lines (RIL) (genetically related lines; usually $>F_5$, developed from continuously selfing F_2 lines towards homozygosity) can be used as a mapping population. Information obtained from dominant markers can be maximized by using RIL because all loci are homozygous or nearly so. Under conditions of tight linkage (i.e., about $<10\%$ recombination), dominant and co-dominant markers evaluated in RIL populations provide more information per individual than either marker type in backcross populations (Reiter *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:1477-1481 (1992), the entirety of which is herein incorporated by reference). However, as the distance between markers becomes larger (i.e., loci become more independent), the information in RIL populations decreases dramatically when compared to codominant markers.

Backcross populations (e.g., generated from a cross between a successful variety (recurrent parent) and another variety (donor parent) carrying a trait not present in the former) can be utilized as a mapping population. A series of backcrosses to the recurrent parent can be made to recover most of its desirable traits. Thus a population is created

5 consisting of individuals nearly like the recurrent parent but each individual carries varying amounts or mosaic of genomic regions from the donor parent. Backcross populations can be useful for mapping dominant markers if all loci in the recurrent parent are homozygous and the donor and recurrent parent have contrasting polymorphic marker alleles (Reiter *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 89:1477-1481 (1992)). Information

10 obtained from backcross populations using either codominant or dominant markers is less than that obtained from F_2 populations because one, rather than two, recombinant gametes are sampled per plant. Backcross populations, however, are more informative (at low marker saturation) when compared to RILs as the distance between linked loci increases in RIL populations (i.e. about 15% recombination). Increased recombination

15 can be beneficial for resolution of tight linkages, but may be undesirable in the construction of maps with low marker saturation.

Near-isogenic lines (NIL) created by many backcrosses to produce an array of individuals that are nearly identical in genetic composition except for the trait or genomic region under interrogation can be used as a mapping population. In mapping with NILs,

20 only a portion of the polymorphic loci are expected to map to a selected region.

Bulk segregant analysis (BSA) is a method developed for the rapid identification of linkage between markers and traits of interest (Michelmore *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88:9828-9832 (1991), the entirety of which is herein incorporated by reference). In BSA, two bulked DNA samples are drawn from a segregating population

25 originating from a single cross. These bulks contain individuals that are identical for a particular trait (resistant or susceptible to particular disease) or genomic region but

arbitrary at unlinked regions (i.e. heterozygous). Regions unlinked to the target region will not differ between the bulked samples of many individuals in BSA.

It is understood that one or more of the nucleic acid molecules of the present invention may be used as molecular markers. It is also understood that one or more of the protein molecules of the present invention may be used as molecular markers.

In accordance with this aspect of the present invention, a sample nucleic acid is obtained from plants cells or tissues. Any source of nucleic acid may be used. Preferably, the nucleic acid is genomic DNA. The nucleic acid is subjected to restriction endonuclease digestion. For example, one or more EST nucleic acid molecule or fragment thereof can be used as a probe in accordance with the above-described polymorphic methods. The polymorphism obtained in this approach can then be cloned to identify the mutation at the coding region which alters the protein's structure or regulatory region of the gene which affects its expression level.

In one aspect of the present invention, an evaluation can be conducted to determine whether a particular mRNA molecule is present. One or more of the nucleic acid molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention are utilized to detect the presence or quantity of the mRNA species. Such molecules are then incubated with cell or tissue extracts of a plant under conditions sufficient to permit nucleic acid hybridization. The detection of double-stranded probe-mRNA hybrid molecules is indicative of the presence of the mRNA; the amount of such hybrid formed is proportional to the amount of mRNA. Thus, such probes may be used to ascertain the level and extent of the mRNA production in a plant's cells or tissues. Such nucleic acid hybridization may be conducted under quantitative conditions (thereby providing a numerical value of the amount of the mRNA present). Alternatively, the assay may be conducted as a qualitative assay that indicates either that the mRNA is present, or that its level exceeds a user set, predefined value.

A principle of *in situ* hybridization is that a labeled, single-stranded nucleic acid probe will hybridize to a complementary strand of cellular DNA or RNA and, under the appropriate conditions, these molecules will form a stable hybrid. When nucleic acid hybridization is combined with histological techniques, specific DNA or RNA sequences

- 5 can be identified within a single cell. An advantage of *in situ* hybridization over more conventional techniques for the detection of nucleic acids is that it allows an investigator to determine the precise spatial population (Angerer *et al.*, *Dev. Biol.* 101: 477-484 (1984), the entirety of which is herein incorporated by reference; Angerer *et al.*, *Dev. Biol.* 112: 157-166 (1985), the entirety of which is herein incorporated by reference;
- 10 Dixon *et al.*, *EMBO J.* 10: 1317-1324 (1991), the entirety of which is herein incorporated by reference). *In situ* hybridization may be used to measure the steady-state level of RNA accumulation. It is a sensitive technique and RNA sequences present in as few as 5-10 copies per cell can be detected (Hardin *et al.*, *J. Mol. Biol.* 202: 417-431.(1989), the entirety of which is herein incorporated by reference). A number of protocols have been
- 15 devised for *in situ* hybridization, each with tissue preparation, hybridization, and washing conditions (Meyerowitz, *Plant Mol. Biol. Rep.* 5: 242-250 (1987), the entirety of which is herein incorporated by reference; Cox and Goldberg, In: *Plant Molecular Biology: A Practical Approach* (ed. C.H. Shaw), pp. 1-35. IRL Press, Oxford (1988), the entirety of which is herein incorporated by reference; Raikhel *et al.*, *In situ RNA hybridization in*
- 20 *plant tissues*. In *Plant Molecular Biology Manual*, vol. B9: 1-32. Kluwer Academic Publisher, Dordrecht, Belgium (1989), the entirety of which is herein incorporated by reference).

In situ hybridization also allows for the localization of proteins within a tissue or cell (Wilkinson, *In Situ Hybridization*, Oxford University Press, Oxford (1992), the

25 entirety of which is herein incorporated by reference; Langdale, *In Situ Hybridization* 165-179 In: *The Maize Handbook*, eds. Freeling and Walbot, Springer-Verlag, New York (1994), the entirety of which is herein incorporated by reference). It is understood that

one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one or more of the antibodies of the present invention may be utilized to detect the level or pattern of a protein or fragment thereof by *in situ* hybridization.

5 Fluorescent *in situ* hybridization also enables the localization of a particular DNA sequence along a chromosome which is useful, among other uses, for gene mapping, following chromosomes in hybrid lines or detecting chromosomes with translocations, transversions or deletions. *In situ* hybridization has been used to identify chromosomes in several plant species (Griffor *et al.*, *Plant Mol. Biol.* 17: 101-109 (1991), the entirety
10 of which is herein incorporated by reference; Gustafson *et al.*, *Proc. Nat'l. Acad. Sci. (U.S.A.)* 87: 1899-1902 (1990), herein incorporated by reference; Mukai and Gill, *Genome* 34: 448-452. (1991); Schwarzacher and Heslop-Harrison, *Genome* 34: 317-323 (1991); Wang *et al.*, *Jpn. J. Genet.* 66: 313-316 (1991), the entirety of which is herein incorporated by reference; Parra and Windle, *Nature Genetics*, 5: 17-21 (1993), the
15 entirety of which is herein incorporated by reference). It is understood that the nucleic acid molecules of the present invention may be used as probes or markers to localize sequences along a chromosome.

It is also understood that one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one
20 or more of the antibodies of the present invention may be utilized to detect the expression level or pattern of a protein or mRNA thereof by *in situ* hybridization.

Another method to localize the expression of a molecule is tissue printing. Tissue printing provides a way to screen, at the same time on the same membrane many tissue sections from different plants or different developmental stages. Tissue-printing
25 procedures utilize films designed to immobilize proteins and nucleic acids. In essence, a freshly cut section of an organ is pressed gently onto nitrocellulose paper, nylon membrane or polyvinylidene difluoride membrane. Such membranes are commercially

available (e.g. Millipore, Bedford, Massachusetts). The contents of the cut cell transfer onto the membrane, and the molecules are immobilized to the membrane. The immobilized molecules form a latent print that can be visualized with appropriate probes. When a plant tissue print is made on nitrocellulose paper, the cell walls leave a physical print that makes the anatomy visible without further treatment (Varner and Taylor, *Plant Physiol.* 91: 31-33 (1989), the entirety of which is herein incorporated by reference).

Tissue printing on substrate films is described by Daoust, *Exp. Cell Res.* 12: 203-211 (1957), the entirety of which is herein incorporated by reference, who detected amylase, protease, ribonuclease, and deoxyribonuclease in animal tissues using starch, gelatin, and agar films. These techniques can be applied to plant tissues (Yomo and Taylor, *Planta* 112:35-43 (1973); Harris and Chrispeels, *Plant Physiol.* 56: 292-299 (1975). Advances in membrane technology have increased the range of applications of Daoust's tissue-printing techniques allowing (Cassab and Varner, *J. Cell. Biol.* 105: 2581-2588 (1987), the entirety of which is herein incorporated by reference; the histochemical localization of various plant enzymes and deoxyribonuclease on nitrocellulose paper and nylon (Spruce *et al.*, *Phytochemistry*, 26: 2901-2903 (1987), the entirety of which is herein incorporated by reference; Barres *et al.* *Neuron* 5: 527-544 (1990), the entirety of which is herein incorporated by reference; the entirety of which is herein incorporated by reference; Reid and Pont-Lezica, *Tissue Printing: Tools for the Study of Anatomy, Histochemistry, and Gene Expression*, Academic Press, New York, New York (1992), the entirety of which is herein incorporated by reference; Reid *et al.* *Plant Physiol.* 93: 160-165 (1990), herein incorporate by reference; Ye *et al.* *Plant J.* 1: 175-183 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention or one or more of the antibodies of the present invention may be utilized to detect the presence or quantity of a protein by tissue printing.

Further, it is also understood that any of the nucleic acid molecules of the present invention may be used as marker nucleic acids and or probes in connection with methods that require probes or marker nucleic acids. As used herein, a probe is an agent that is utilized to determine an attribute or feature (e.g. presence or absence, location, correlation, etc.) or a molecule, cell, tissue or plant. As used herein, a marker nucleic acid is a nucleic acid molecule that is utilized to determine an attribute or feature (e.g., presence or absence, location, correlation, etc.) or a molecule, cell, tissue or plant.

A microarray-based method for high-throughput monitoring of plant gene expression may be utilized to measure gene-specific hybridization targets. This 'chip'-based approach involves using microarrays of nucleic acid molecules as gene-specific hybridization targets to quantitatively measure expression of the corresponding plant genes (Schena *et al.*, *Science* 270: 467-470 (1995), the entirety of which is herein incorporated by reference; Shalon, Ph.D. Thesis. Stanford University (1996), the entirety of which is herein incorporated by reference). Every nucleotide in a large sequence can be queried at the same time. Hybridization can be used to efficiently analyze large amounts of nucleotide sequence.

Several microarray methods have been described. One method compares the sequences to be analyzed by hybridization to a set of oligonucleotides representing all possible subsequences (Bains and Smith, *J. Theor. Biol.* 135: 303 (1989), the entirety of which is herein incorporated by reference). A second method hybridizes the sample to an array of oligonucleotide probes. An array consisting of oligonucleotides complementary to subsequences of a target sequence can be used to determine the identity of a target sequence, measure its amount, and detect differences between the target and a reference sequence. Nucleic acid molecules microarrays may also be screened with protein molecules or fragments thereof to determine nucleic acid molecules that specifically bind protein molecules or fragments thereof.

The microarray approach may be used with polypeptide targets (U.S. Patent No. 5,445,934; U.S. Patent No: 5,143,854; U.S. Patent No. 5,079,600; U.S. Patent No. 4,923,901, all of which are herein incorporated by reference in their entirety).

Essentially, polypeptides are synthesized on a substrate (microarray) and these

5 polypeptides can be screened with either protein molecules or fragments thereof or nucleic acid molecules in order to screen for either protein molecules or fragments thereof or nucleic acid molecules that specifically bind the target polypeptides. Implementation of these techniques rely on recently developed combinatorial technologies to generate any ordered array of a large number of oligonucleotide probes (Fodor *et al.*, *Science* 251:767-
10 773 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the molecules of the present invention, preferably one or more of the nucleic acid molecules or protein molecules or fragments thereof of the present invention may be utilized in a microarray based method.

In a preferred embodiment of the present invention microarrays may be prepared
15 that comprise nucleic acid molecules where preferably at least 10%, preferably at least 25%, more preferably at least 50% and even more preferably at least 75%, 80%, 85%, 90% or 95% of the nucleic acid molecules located on that array are selected from the group of nucleic acid molecules that specifically hybridize to one or more nucleic acid molecule having a nucleic acid sequence selected from the group of SEQ ID NO: 1
20 through SEQ ID NO: 18831 or complement thereof or fragments of either.

A particular preferred microarray embodiment of the present invention is a microarray comprising nucleic acid molecules encoding genes or fragments thereof that are homologues of known genes or nucleic acid molecules that comprise genes or fragment thereof that elicit only limited or no matches to known genes. A further
25 preferred microarray embodiment of the present invention is a microarray comprising nucleic acid molecules having genes or fragments thereof that are homologues of known genes and nucleic acid molecules that comprise genes or fragment thereof that elicit only

limited or no matches to known genes. Site-directed mutagenesis may be utilized to modify nucleic acid sequences, particularly as it is a technique that allows one or more of the amino acids encoded by a nucleic acid molecule to be altered (e.g. a threonine to be replaced by a methionine). Three basic methods for site-directed mutagenesis are often employed. These are cassette mutagenesis (Wells *et al.*, *Gene* 34:315-23 (1985), the entirety of which is herein incorporated by reference), primer extension (Gilliam *et al.*, *Gene* 12:129-137 (1980), the entirety of which is herein incorporated by reference); Zoller and Smith, *Methods Enzymol.* 100:468-500 (1983), the entirety of which is herein incorporated by reference; and Dalbadie-McFarland *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 79:6409-6413 (1982), the entirety of which is herein incorporated by reference) and methods based upon PCR (Scharf *et al.*, *Science* 233:1076-1078 (1986), the entirety of which is herein incorporated by reference; Higuchi *et al.*, *Nucleic Acids Res.* 16:7351-7367 (1988), the entirety of which is herein incorporated by reference). Site-directed mutagenesis approaches are also described in European Patent 0 385 962, the entirety of which is herein incorporated by reference, European Patent 0 359 472, the entirety of which is herein incorporated by reference, and PCT Patent Application WO 93/07278, the entirety of which is herein incorporated by reference.

Site-directed mutagenesis strategies have been applied to plants for both *in vitro* as well as *in vivo* site-directed mutagenesis (Lanz *et al.*, *J. Biol. Chem.* 266:9971-6 (1991), the entirety of which is herein incorporated by reference; Kovgan and Zhdanov, *Biotekhnologiya* 5:148-154; No. 207160n, Chemical Abstracts 110:225 (1989), the entirety of which is herein incorporated by reference; Ge *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:4037-4041 (1989), the entirety of which is herein incorporated by reference, Zhu *et al.*, *J. Biol. Chem.* 271:18494-18498 (1996), Chu *et al.*, *Biochemistry* 33:6150-6157 (1994), the entirety of which is herein incorporated by reference, Small *et al.*, *EMBO J.* 11:1291-1296 (1992), the entirety of which is herein incorporated by reference, Cho *et al.*, *Mol. Biotechnol.* 8:13-16 (1997), Kita *et al.*, *J. Biol. Chem.* 271:26529-26535

(1996), the entirety of which is herein incorporated by reference, Jin *et al.*, *Mol. Microbiol.* 7:555-562 (1993), the entirety of which is herein incorporated by reference, Hatfield and Vierstra, *J. Biol. Chem.* 267:14799-14803 (1992), the entirety of which is herein incorporated by reference, Zhao *et al.*, *Biochemistry* 31:5093-5099 (1992), the
 5 entirety of which is herein incorporated by reference).

Any of the nucleic acid molecules of the present invention may either be modified by site-directed mutagenesis or used as, for example, nucleic acid molecules that are used to target other nucleic acid molecules for modification. It is understood that mutants with more than one altered nucleotide can be constructed using techniques that practitioners
 10 skilled in the art are familiar with such as isolating restriction fragments and ligating such fragments into an expression vector (*see*, for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Press (1989)).

Sequence-specific DNA-binding proteins play a role in the regulation of transcription. The isolation of recombinant cDNAs encoding these proteins facilitates the
 15 biochemical analysis of their structural and functional properties. Genes encoding such DNA-binding proteins have been isolated using classical genetics (Vollbrecht *et al.*, *Nature* 350: 241-243 (1991), the entirety of which is herein incorporated by reference) and molecular biochemical approaches, including the screening of recombinant cDNA libraries with antibodies (Landschulz *et al.*, *Genes Dev.* 2: 786-800 (1988), the entirety
 20 of which is herein incorporated by reference) or DNA probes (Bodner *et al.*, *Cell* 55: 505-518 (1988), the entirety of which is herein incorporated by reference). In addition, an *in situ* screening procedure has been used and has facilitated the isolation of sequence-specific DNA-binding proteins from various plant species (Gilmartin *et al.*, *Plant Cell* 4: 839-849 (1992), the entirety of which is herein incorporated by reference; Schindler *et al.*, *EMBO J.* 11: 1261-1273 (1992) the entirety of which is herein incorporated by
 25 reference). An *in situ* screening protocol does not require the purification of the protein of interest (Vinson *et al.*, *Genes Dev.* 2: 801-806 (1988), the entirety of which is herein

incorporated by reference; Singh *et al.*, *Cell* 52: 415-423 (1988), the entirety of which is herein incorporated by reference).

Steps may be employed to characterize DNA-protein interactions. The first is to identify promoter fragments that interact with DNA-binding proteins, to titrate binding activity, to determine the specificity of binding, and to determine whether a given DNA-binding activity can interact with related DNA sequences (Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, 2nd edition. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York (1989). Electrophoretic mobility-shift assay is a widely used assay. The assay provides a simple, rapid, and sensitive method for detecting DNA-binding proteins based on the observation that the mobility of a DNA fragment through a nondenaturing, low-ionic strength polyacrylamide gel is retarded upon association with a DNA-binding protein (Fried and Crother, *Nucleic Acids Res.* 9: 6505-6525 (1981), the entirety of which is herein incorporated by reference). When one or more specific binding activities have been identified, the exact sequence of the DNA bound by the protein may be determined. Several procedures for characterizing protein/DNA-binding sites are used, including methylation and ethylation interference assays (Maxam and Gilbert, *Methods Enzymol.* 65: 499-560 (1980), the entirety of which is herein incorporated by reference; Wissman and Hillen, *Methods Enzymol.* 208: 365-379 (1991), the entirety of which is herein incorporated by reference) and footprinting techniques employing DNase I (Galas and Schmitz, *Nucleic Acids Res.* 5: 3157-3170 (1978), the entirety of which is herein incorporated by reference), 1,10-phenanthroline-copper ion methods (Sigman *et al.*, *Methods Enzymol.* 208: 365-379 (1991), the entirety of which is herein incorporated by reference) or hydroxyl radical methods (Dixon *et al.*, *Methods Enzymol.* 208: 380-413 (1991), the entirety of which is herein incorporated by reference).

It is understood that one or more of the nucleic acid molecules of the present invention, preferably one or more of the EST nucleic acid molecules of the present invention may be utilized to identify a protein or fragment thereof that specifically binds to a nucleic acid

molecule of the present invention. It is also understood that one or more of the protein molecules or fragments thereof of the present invention may be utilized to identify a nucleic acid molecule that specifically binds to it.

The two-hybrid system is based on the fact that many cellular functions are
 5 carried out by proteins that interact (physically) with one another. Two-hybrid systems have been used to probe the function of new proteins (Chien *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 88: 9578-9582 (1991) the entirety of which is herein incorporated by reference; Durfee *et al.*, *Genes Dev.* 7: 555-569 (1993) the entirety of which is herein incorporated by reference; Choi *et al.*, *Cell* 78: 499-512 (1994), the entirety of which is herein
 10 incorporated by reference; Kranz *et al.*, *Genes Dev.* 8: 313-327 (1994), the entirety of which is herein incorporated by reference).

Interaction mating techniques have facilitated a number of two-hybrid studies of protein-protein interaction. Interaction mating has been used to examine interactions between small sets of tens of proteins (Finley and Brent, *Proc. Natl. Acad. Sci. (U.S.A.)* 91: 12098-12984 (1994), the entirety of which is herein incorporated by reference), larger
 15 sets of hundreds of proteins, (Bendixen *et al.*, *Nucl. Acids Res.* 22: 1778-1779 (1994), the entirety of which is herein incorporated by reference) and to comprehensively map proteins encoded by a small genome (Bartel *et al.*, *Nature Genetics* 12: 72-77 (1996), the entirety of which is herein incorporated by reference). This technique utilizes proteins
 20 fused to the DNA-binding domain and proteins fused to the activation domain. They are expressed in two different haploid yeast strains of opposite mating type, and the strains are mated to determine if the two proteins interact. Mating occurs when haploid yeast strains come into contact and result in the fusion of the two haploids into a diploid yeast strain. An interaction can be determined by the activation of a two-hybrid reporter gene
 25 in the diploid strain. The primary advantage of this technique is that it reduces the number of yeast transformations needed to test individual interactions. It is understood that the protein-protein interactions of protein or fragments thereof of the present

invention may be investigated using the two-hybrid system and that any of the nucleic acid molecules of the present invention that encode such proteins or fragments thereof may be used to transform yeast in the two-hybrid system.

Synechocystis 6803 is a photosynthetic Cyanobacterium capable of oxygenic photosynthesis as well as heterotrophic growth in the absence of light. The entire genome has been sequenced, and it is reported to have a circular genome size of 3.57 Mbp containing 3168 potential open reading frames. Open reading frames (ORFs) were identified based upon their homology to other reported ORFs and by using ORF identification computer programs. Sixteen hundred potential ORFs were assigned based on their homology to previously identified ORFs. Of these 1600 ORFs, 145 were identical to reported ORFs (Kaneko *et al.*, *DNA Research* 3:109-36 (1996), herein incorporated by reference in its entirety).

Several prokaryote promoters have been used in *Synechocystis* to express heterologous genes including the tac, lac, and lambda phage promoters (Bryant (ed.), *The Molecular Biology of Cyanobacteria*, Kluwer Academic Publishers, (1994); Ferino and Chauvat, *Gene* 84:257-266 (1989), both of which are herein incorporated by reference in their entirety). Several bacterial origins of replication such as RSF1010 and ACYC are reported to replicate in *Synechocystis* (Mermet-Bouvier and Chauvat, *Current Microbiology* 28:145-148 (1994); Kuhlemeier *et al.*, *Mol. Gen. Genet.* 184:249-254 (1981), both of which are herein incorporated by reference in their entirety).

Synechocystis has been used to study gene regulation by gene replacement through homologous recombination or by gene disruption using antibiotic resistance markers (Pakrasi *et al.*, *EMBO* 7:325-332 (1988), herein incorporated by reference in its entirety). In such gene regulation studies, double reciprocal homologous regions of the host genome flanking the gene of interest recombine to stably integrate the gene of interest into the genome. The gene of interest can be expressed once that gene has been stably integrated into the genome. Biochemical analysis can be performed to study the effect of the replaced or deleted gene.

It is understood that the agents of the present invention may be employed in a *Synechocystis* system.

Exogenous genetic material may be transferred into a plant cell and the plant cell regenerated into a whole, fertile or sterile plant. Exogenous genetic material is any genetic material, whether naturally occurring or otherwise, from any source that is capable of being inserted into any organism. Such genetic material may be transferred into either monocotyledons and dicotyledons including but not limited to the crops, maize and soybean (*See specifically, Chistou, Particle Bombardment for Genetic Engineering of Plants*, pp 63-69 (maize), pp50-60 (soybean), Biotechnology Intelligence Unit. Academic Press, San Diego, California (1996), the entirety of which is herein incorporated by reference and generally Chistou, *Particle Bombardment for Genetic Engineering of Plants*, Biotechnology Intelligence Unit. Academic Press, San Diego, California (1996), the entirety of which is herein incorporated by reference).

Transfer of a nucleic acid that encodes for a protein can result in overexpression of that protein in a transformed cell or transgenic plant. One or more of the proteins or fragments thereof encoded by nucleic acid molecules of the present invention may be overexpressed in a transformed cell or transformed plant. Such overexpression may be the result of transient or stable transfer of the exogenous material.

Exogenous genetic material may be transferred into a plant cell by the use of a DNA vector or construct designed for such a purpose. Design of such a vector is generally within the skill of the art (*See, Plant Molecular Biology: A Laboratory Manual* eds. Clark, Springer, New York (1997), the entirety of which is herein incorporated by reference).

A construct or vector may include a plant promoter to express the protein or protein fragment of choice. A number of promoters which are active in plant cells have been described in the literature. These include the nopaline synthase (NOS) promoter (Ebert *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 84:5745-5749 (1987), the entirety of which is

herein incorporated by reference), the octopine synthase (OCS) promoter (which are carried on tumor-inducing plasmids of *Agrobacterium tumefaciens*), the caulimovirus promoters such as the cauliflower mosaic virus (CaMV) 19S promoter (Lawton *et al.*, *Plant Mol. Biol.* 9:315-324 (1987), the entirety of which is herein incorporated by reference) and the CAMV 35S promoter (Odell *et al.*, *Nature* 313:810-812 (1985), the entirety of which is herein incorporated by reference), the figwort mosaic virus 35S-promoter, the light-inducible promoter from the small subunit of ribulose-1,5-bis-phosphate carboxylase (ssRUBISCO), the Adh promoter (Walker *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 84:6624-6628 (1987), the entirety of which is herein incorporated by reference), the sucrose synthase promoter (Yang *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:4144-4148 (1990), the entirety of which is herein incorporated by reference), the R gene complex promoter (Chandler *et al.*, *The Plant Cell* 1:1175-1183 (1989), the entirety of which is herein incorporated by reference), and the chlorophyll a/b binding protein gene promoter, etc. These promoters have been used to create DNA constructs which have been expressed in plants; *see, e.g.*, PCT publication WO 84/02913, herein incorporated by reference in its entirety.

Promoters which are known or are found to cause transcription of DNA in plant cells can be used in the present invention. Such promoters may be obtained from a variety of sources such as plants and plant viruses. It is preferred that the particular promoter selected should be capable of causing sufficient expression to result in the production of an effective amount of a protein to cause the desired phenotype. In addition to promoters which are known to cause transcription of DNA in plant cells, other promoters may be identified for use in the current invention by screening a plant cDNA library for genes which are selectively or preferably expressed in the target tissues or cells.

For the purpose of expression in source tissues of the plant, such as the leaf, seed, root or stem, it is preferred that the promoters utilized in the present invention have

relatively high expression in these specific tissues. For this purpose, one may choose from a number of promoters for genes with tissue- or cell-specific or -enhanced expression. Examples of such promoters reported in the literature include the chloroplast glutamine synthetase GS2 promoter from pea (Edwards *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:3459-3463 (1990), herein incorporated by reference in its entirety), the chloroplast fructose-1,6-biphosphatase (FBPase) promoter from wheat (Lloyd *et al.*, *Mol. Gen. Genet.* 225:209-216 (1991), herein incorporated by reference in its entirety), the nuclear photosynthetic ST-LS1 promoter from potato (Stockhaus *et al.*, *EMBO J.* 8:2445-2451 (1989), herein incorporated by reference in its entirety), the phenylalanine ammonia-lyase (PAL) promoter and the chalcone synthase (CHS) promoter from *Arabidopsis thaliana*. Also reported to be active in photosynthetically active tissues are the ribulose-1,5-bisphosphate carboxylase (RbcS) promoter from eastern larch (*Larix laricina*), the promoter for the *cab* gene, *cab6*, from pine (Yamamoto *et al.*, *Plant Cell Physiol.* 35:773-778 (1994), herein incorporated by reference in its entirety), the promoter for the Cab-1 gene from wheat (Fejes *et al.*, *Plant Mol. Biol.* 15:921-932 (1990), herein incorporated by reference in its entirety), the promoter for the CAB-1 gene from spinach (Lubberstedt *et al.*, *Plant Physiol.* 104:997-1006 (1994), herein incorporated by reference in its entirety), the promoter for the *cab1R* gene from rice (Luan *et al.*, *Plant Cell.* 4:971-981 (1992), the entirety of which is herein incorporated by reference), the pyruvate, orthophosphate dikinase (PPDK) promoter from maize (Matsuoka *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 90: 9586-9590 (1993), herein incorporated by reference in its entirety), the promoter for the tobacco Lhcb1*2 gene (Cerdan *et al.*, *Plant Mol. Biol.* 33: 245-255. (1997), herein incorporated by reference in its entirety), the *Arabidopsis thaliana* SUC2 sucrose-H⁺ symporter promoter (Truernit *et al.*, *Planta.* 196: 564-570 (1995), herein incorporated by reference in its entirety), and the promoter for the thylacoid membrane proteins from spinach (*psaD*, *psaF*, *psaE*, *PC*, *FNR*, *atpC*, *atpD*, *cab*, *rbcS*). Other promoters for the chlorophyll a/b-binding proteins may also be utilized in

the present invention, such as the promoters for LhcB gene and PsbP gene from white mustard (*Sinapis alba*; Kretsch *et al.*, *Plant Mol. Biol.* 28: 219-229 (1995), the entirety of which is herein incorporated by reference).

For the purpose of expression in sink tissues of the plant, such as the tuber of the potato plant, the fruit of tomato, or the seed of maize, wheat, rice, and barley, it is preferred that the promoters utilized in the present invention have relatively high expression in these specific tissues. A number of promoters for genes with tuber-specific or -enhanced expression are known, including the class I patatin promoter (Bevan *et al.*, *EMBO J.* 8: 1899-1906 (1986); Jefferson *et al.*, *Plant Mol. Biol.* 14: 995-1006 (1990), both of which are herein incorporated by reference in its entirety), the promoter for the potato tuber ADPGPP genes, both the large and small subunits, the sucrose synthase promoter (Salanoubat and Belliard, *Gene.* 60: 47-56 (1987), Salanoubat and Belliard, *Gene.* 84: 181-185 (1989), both of which are incorporated by reference in their entirety), the promoter for the major tuber proteins including the 22 kd protein complexes and proteinase inhibitors (Hannapel, *Plant Physiol.* 101: 703-704 (1993), herein incorporated by reference in its entirety), the promoter for the granule bound starch synthase gene (GBSS) (Visser *et al.*, *Plant Mol. Biol.* 17: 691-699 (1991), herein incorporated by reference in its entirety), and other class I and II patatins promoters (Koster-Topfer *et al.*, *Mol Gen Genet.* 219: 390-396 (1989); Mignery *et al.*, *Gene.* 62: 27-44 (1988), both of which are herein incorporated by reference in their entirety).

Other promoters can also be used to express a fructose 1,6 bisphosphate aldolase gene in specific tissues, such as seeds or fruits. The promoter for β -conglycinin (Chen *et al.*, *Dev. Genet.* 10: 112-122 (1989), herein incorporated by reference in its entirety) or other seed-specific promoters such as the napin and phaseolin promoters, can be used.

The zeins are a group of storage proteins found in maize endosperm. Genomic clones for zein genes have been isolated (Pedersen *et al.*, *Cell* 29: 1015-1026 (1982), herein incorporated by reference in its entirety), and the promoters from these clones, including

the 15 kD, 16 kD, 19 kD, 22 kD, 27 kD, and gamma genes, could also be used. Other promoters known to function, for example, in maize, include the promoters for the following genes: *waxy*, *Brittle*, *Shrunken 2*, Branching enzymes I and II, starch synthases, debranching enzymes, oleosins, glutelins, and sucrose synthases. A particularly preferred promoter for maize endosperm expression is the promoter for the glutelin gene from rice, more particularly the Osgt-1 promoter (Zheng *et al.*, *Mol. Cell Biol.* 13: 5829-5842 (1993), herein incorporated by reference in its entirety). Examples of promoters suitable for expression in wheat include those promoters for the ADPglucose pyrophosphorylase (ADPGPP) subunits, the granule bound and other starch synthases, the branching and debranching enzymes, the embryogenesis-abundant proteins, the gliadins, and the glutenins. Examples of such promoters in rice include those promoters for the ADPGPP subunits, the granule bound and other starch synthases, the branching enzymes, the debranching enzymes, sucrose synthases, and the glutelins. A particularly preferred promoter is the promoter for rice glutelin, Osgt-1. Examples of such promoters for barley include those for the ADPGPP subunits, the granule bound and other starch synthases, the branching enzymes, the debranching enzymes, sucrose synthases, the hordeins, the embryo globulins, and the aleurone specific proteins.

Root specific promoters may also be used. An example of such a promoter is the promoter for the acid chitinase gene (Samac *et al.*, *Plant Mol. Biol.* 25: 587-596 (1994), the entirety of which is herein incorporated by reference). Expression in root tissue could also be accomplished by utilizing the root specific subdomains of the CaMV35S promoter that have been identified (Lam *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 86:7890-7894 (1989), herein incorporated by reference in its entirety). Other root cell specific promoters include those reported by Conkling *et al.* (Conkling *et al.*, *Plant Physiol.* 93:1203-1211 (1990), the entirety of which is herein incorporated by reference).

Additional promoters that may be utilized are described, for example, in U.S. Patent Nos. 5,378,619, 5,391,725, 5,428,147, 5,447,858, 5,608,144, 5,608,144,

5,614,399, 5,633,441, 5,633,435, and 4,633,436, all of which are herein incorporated in their entirety. In addition, a tissue specific enhancer may be used (Fromm *et al.*, *The Plant Cell* 1:977-984 (1989), the entirety of which is herein incorporated by reference).

Constructs or vectors may also include, with the coding region of interest, a nucleic acid sequence that acts, in whole or in part, to terminate transcription of that region. For example, such sequences have been isolated including the Tr7 3' sequence and the nos 3' sequence (Ingelbrecht *et al.*, *The Plant Cell* 1:671-680 (1989), the entirety of which is herein incorporated by reference; Bevan *et al.*, *Nucleic Acids Res.* 11:369-385 (1983), the entirety of which is herein incorporated by reference), or the like.

A vector or construct may also include regulatory elements. Examples of such include the Adh intron 1 (Callis *et al.*, *Genes and Develop.* 1:1183-1200 (1987), the entirety of which is herein incorporated by reference), the sucrose synthase intron (Vasil *et al.*, *Plant Physiol.* 91:1575-1579 (1989), the entirety of which is herein incorporated by reference) and the TMV omega element (Gallie *et al.*, *The Plant Cell* 1:301-311 (1989), the entirety of which is herein incorporated by reference). These and other regulatory elements may be included when appropriate.

A vector or construct may also include a selectable marker. Selectable markers may also be used to select for plants or plant cells that contain the exogenous genetic material. Examples of such include, but are not limited to, a neo gene (Potrykus *et al.*, *Mol. Gen. Genet.* 199:183-188 (1985), the entirety of which is herein incorporated by reference) which codes for kanamycin resistance and can be selected for using kanamycin, G418, etc.; a bar gene which codes for bialaphos resistance; a mutant EPSP synthase gene (Hinchee *et al.*, *Bio/Technology* 6:915-922 (1988), the entirety of which is herein incorporated by reference) which encodes glyphosate resistance; a nitrilase gene which confers resistance to bromoxynil (Stalker *et al.*, *J. Biol. Chem.* 263:6310-6314 (1988), the entirety of which is herein incorporated by reference); a mutant acetolactate synthase gene (ALS) which confers imidazolinone or sulphonylurea resistance (European

Patent Application 154,204 (Sept. 11, 1985), the entirety of which is herein incorporated by reference); and a methotrexate resistant DHFR gene (Thillet *et al.*, *J. Biol. Chem.* 263:12500-12508 (1988), the entirety of which is herein incorporated by reference).

A vector or construct may also include a transit peptide. Incorporation of a suitable chloroplast transit peptide may also be employed (European Patent Application Publication Number 0218571, the entirety of which is herein incorporated by reference). Translational enhancers may also be incorporated as part of the vector DNA. DNA constructs could contain one or more 5' non-translated leader sequences which may serve to enhance expression of the gene products from the resulting mRNA transcripts. Such sequences may be derived from the promoter selected to express the gene or can be specifically modified to increase translation of the mRNA. Such regions may also be obtained from viral RNAs, from suitable eukaryotic genes, or from a synthetic gene sequence. For a review of optimizing expression of transgenes, see Koziel *et al.*, *Plant Mol. Biol.* 32:393-405 (1996), the entirety of which is herein incorporated by reference.

A vector or construct may also include a screenable marker. Screenable markers may be used to monitor expression. Exemplary screenable markers include a β -glucuronidase or uidA gene (GUS) which encodes an enzyme for which various chromogenic substrates are known (Jefferson, *Plant Mol. Biol. Rep.* 5: 387-405 (1987), the entirety of which is herein incorporated by reference; Jefferson *et al.*, *EMBO J.* 6: 3901-3907 (1987), the entirety of which is herein incorporated by reference); an R-locus gene, which encodes a product that regulates the production of anthocyanin pigments (red color) in plant tissues ((Dellaporta *et al.*, *Stadler Symposium* 11:263-282 (1988), the entirety of which is herein incorporated by reference); a β -lactamase gene (Sutcliffe *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 75: 3737-3741 (1978), the entirety of which is herein incorporated by reference), a gene which encodes an enzyme for which various chromogenic substrates are known (e.g., PADAC, a chromogenic cephalosporin); a luciferase gene (Ow *et al.*, *Science* 234: 856-859 (1986), the entirety of which is herein

incorporated by reference) a xylE gene (Zukowsky *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 80:1101-1105 (1983), the entirety of which is herein incorporated by reference) which encodes a catechol dioxygenase that can convert chromogenic catechols; an α -amylase gene (Ikata *et al.*, *Bio/Technol.* 8:241-242 (1990), the entirety of which is herein
 5 incorporated by reference); a tyrosinase gene (Katz *et al.*, *J. Gen. Microbiol.* 129:2703-2714 (1983), the entirety of which is herein incorporated by reference) which encodes an enzyme capable of oxidizing tyrosine to DOPA and dopaquinone which in turn condenses to melanin; an α -galactosidase, which will turn a chromogenic α -galactose substrate.

Included within the terms "selectable or screenable marker genes" are also genes
 10 which encode a scriptable marker whose secretion can be detected as a means of identifying or selecting for transformed cells. Examples include markers which encode a secretable antigen that can be identified by antibody interaction, or even secretable enzymes which can be detected catalytically. Secretable proteins fall into a number of classes, including small, diffusible proteins detectable, *e.g.*, by ELISA, small active
 15 enzymes detectable in extracellular solution (*e.g.*, α -amylase, β -lactamase, phosphinothricin transferase), or proteins which are inserted or trapped in the cell wall (such as proteins which include a leader sequence such as that found in the expression unit of extension or tobacco PR-S). Other possible selectable and/or screenable marker genes will be apparent to those of skill in the art.

20 Methods and compositions for transforming a bacteria and other microorganisms are known in the art (see for example Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Second Edition, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., (1989), the entirety of which is herein incorporated by reference).

There are many methods for introducing transforming nucleic acid molecules into
 25 plant cells. Suitable methods are believed to include virtually any method by which nucleic acid molecules may be introduced into a cell, such as by *Agrobacterium* infection or direct delivery of nucleic acid molecules such as, for example, by PEG-mediated

transformation, by electroporation or by acceleration of DNA coated particles, etc.

(Pottkykus, *Ann. Rev. Plant Physiol. Plant Mol. Biol.* 42:205-225 (1991), the entirety of which is herein incorporated by reference; Vasil, *Plant Mol. Biol.* 25: 925-937 (1994), the entirety of which is herein incorporated by reference. For example, electroporation has
 5 been used to transform maize protoplasts (Fromm *et al.*, *Nature* 312:791-793 (1986), the entirety of which is herein incorporated by reference).

Other vector systems suitable for introducing transforming DNA into a host plant cell includes but is not limited to binary artificial chromosome (BIBAC) vectors (Hamilton *et al.*, *Gene* 200:107-116, (1997), the entirety of which is herein incorporated
 10 by reference, and transfection with RNA viral vectors (Della-Cioppa *et al.*, *Ann. N.Y. Acad. Sci.* (1996), 792 (Engineering Plants for Commercial Products and Applications), 57-61, the entirety of which is herein incorporated by reference.

Technology for introduction of DNA into cells is well known to those of skill in the art. Four general methods for delivering a gene into cells have been described: (1)
 15 chemical methods (Graham and van der Eb, *Virology*, 54:536-539 (1973), the entirety of which is herein incorporated by reference); (2) physical methods such as microinjection (Capecchi, *Cell* 22:479-488 (1980), electroporation (Wong and Neumann, *Biochem. Biophys. Res. Commun.*, 107:584-587 (1982); Fromm *et al.*, *Proc. Natl. Acad. Sci. USA*, 82:5824-5828 (1985); U. S. Patent No. 5,384,253; and the gene gun (Johnston and Tang,
 20 *Methods Cell Biol.* 43:353-365 (1994), all of which the entirety is herein incorporated by reference; (3) viral vectors (Clapp, *Clin. Perinatol.*, 20:155-168 (1993); Lu *et al.*, *J. Exp. Med.*, 178:2089-2096 (1993); Eglitis and Anderson, *Biotechniques*, 6:608-614 (1988), all of which the entirety is herein incorporated by reference); and (4) receptor-mediated mechanisms (Curiel *et al.*, *Hum. Gen. Ther.*, 3:147-154 (1992); Wagner *et al.*, *Proc. Natl.*
 25 *Acad. Sci. USA*, 89:6099-6103 (1992), all of which the entirety is herein incorporated by reference).

Acceleration methods that may be used include, for example, microprojectile bombardment and the like. One example of a method for delivering transforming nucleic acid molecules to plant cells is microprojectile bombardment. This method has been reviewed by Yang and Christou, eds., *Particle Bombardment Technology for Gene Transfer*, Oxford Press, Oxford, England (1994), the entirety of which is herein
 5 incorporated by reference). Non-biological particles (microprojectiles) that may be coated with nucleic acids and delivered into cells by a propelling force. Exemplary particles include those comprised of tungsten, gold, platinum, and the like.

A particular advantage of microprojectile bombardment, in addition to it being an
 10 effective means of reproducibly, and stably transforming monocotyledons, is that neither the isolation of protoplasts (Cristou *et al.*, *Plant Physiol.* 87:671-674 (1988), the entirety of which is herein incorporated by reference) nor the susceptibility of *Agrobacterium* infection is required. An illustrative embodiment of a method for delivering DNA into maize cells by acceleration is a biolistics g-particle delivery system, which can be used to
 15 propel particles coated with DNA through a screen, such as a stainless steel or Nytex screen, onto a filter surface covered with corn cells cultured in suspension. Gordon-Kamm *et al.*, describes the basic procedure for coating tungsten particles with DNA (Gordon-Kamm *et al.*, *Plant Cell* 2: 603-618 (1990), the entirety of which is herein incorporated by reference). The screen disperses the tungsten nucleic acid particles so
 20 that they are not delivered to the recipient cells in large aggregates. A particle delivery system suitable for use with the present invention is the helium acceleration PDS-1000/He gun which is available from Bio-Rad Laboratories (Bio-Rad, Hercules, California)(Sanford *et al.*, *Technique* 3:3-16 (1991), the entirety of which is herein incorporated by reference).

25 For the bombardment, cells in suspension may be concentrated on filters. Filters containing the cells to be bombarded are positioned at an appropriate distance below the

microprojectile stopping plate. If desired, one or more screens are also positioned between the gun and the cells to be bombarded.

Alternatively, immature embryos or other target cells may be arranged on solid culture medium. The cells to be bombarded are positioned at an appropriate distance below the macroprojectile stopping plate. If desired, one or more screens are also positioned between the acceleration device and the cells to be bombarded. Through the use of techniques set forth herein one may obtain up to 1000 or more foci of cells transiently expressing a marker gene. The number of cells in a focus which express the exogenous gene product 48 hours post-bombardment often range from one to ten and average one to three.

In bombardment transformation, one may optimize the prebombardment culturing conditions and the bombardment parameters to yield the maximum numbers of stable transformants. Both the physical and biological parameters for bombardment are important in this technology. Physical factors are those that involve manipulating the DNA/microprojectile precipitate or those that affect the flight and velocity of either the macro- or microprojectiles. Biological factors include all steps involved in manipulation of cells before and immediately after bombardment, the osmotic adjustment of target cells to help alleviate the trauma associated with bombardment, and also the nature of the transforming DNA, such as linearized DNA or intact supercoiled plasmids. It is believed that pre-bombardment manipulations are especially important for successful transformation of immature embryos. In another alternative embodiment, plastids can be stably transformed. Methods disclosed for plastid transformation in higher plants include the particle gun delivery of DNA containing a selectable marker and targeting of the DNA to the plastid genome through homologous recombination (Svab *et al.*, *Proc. Natl. Acad. Sci. (U.S.A.)* 87:8526-8530 (1990); Svab and Maliga, *Proc. Natl. Acad. Sci. (U.S.A.)* 90:913-917 (1993); Staub and Maliga, *EMBO J.* 12:601-606 (1993); U.S.

Patents 5, 451,513 and 5,545,818, all of which are herein incorporated by reference in their entirety).

Accordingly, it is contemplated that one may wish to adjust various aspects of the bombardment parameters in small scale studies to fully optimize the conditions. One may particularly wish to adjust physical parameters such as gap distance, flight distance, tissue distance, and helium pressure. One may also minimize the trauma reduction factors by modifying conditions which influence the physiological state of the recipient cells and which may therefore influence transformation and integration efficiencies. For example, the osmotic state, tissue hydration and the subculture stage or cell cycle of the recipient cells may be adjusted for optimum transformation. The execution of other routine adjustments will be known to those of skill in the art in light of the present disclosure.

Agrobacterium-mediated transfer is a widely applicable system for introducing genes into plant cells because the DNA can be introduced into whole plant tissues, thereby bypassing the need for regeneration of an intact plant from a protoplast. The use of *Agrobacterium*-mediated plant integrating vectors to introduce DNA into plant cells is well known in the art. See, for example the methods described (Fraley *et al.*, *Biotechnology* 3:629-635 (1985); Rogers *et al.*, *Meth. In Enzymol*, 153:253-277 (1987), both of which are herein incorporated by reference in their entirety. Further, the integration of the Ti-DNA is a relatively precise process resulting in few rearrangements. The region of DNA to be transferred is defined by the border sequences, and intervening DNA is usually inserted into the plant genome as described (Spielmann *et al.*, *Mol. Gen. Genet.*, 205:34 (1986), the entirety of which is herein incorporated by reference).

Modern *Agrobacterium* transformation vectors are capable of replication in *E. coli* as well as *Agrobacterium*, allowing for convenient manipulations as described (Klee *et al.*, *In: Plant DNA Infectious Agents*, T. Hohn and J. Schell, eds., Springer-Verlag, New York, pp. 179-203 (1985), the entirety of which is herein incorporated by reference.

Moreover, recent technological advances in vectors for *Agrobacterium*-mediated gene transfer have improved the arrangement of genes and restriction sites in the vectors to facilitate construction of vectors capable of expressing various polypeptide coding genes. The vectors described have convenient multi-linker regions flanked by a promoter and a polyadenylation site for direct expression of inserted polypeptide coding genes and are suitable for present purposes (Rogers *et al.*, *Meth. In Enzymol.*, 153:253-277 (1987), the entirety of which is herein incorporated by reference). In addition, *Agrobacterium* containing both armed and disarmed Ti genes can be used for the transformations. In those plant strains where *Agrobacterium*-mediated transformation is efficient, it is the method of choice because of the facile and defined nature of the gene transfer.

A transgenic plant formed using *Agrobacterium* transformation methods typically contains a single gene on one chromosome. Such transgenic plants can be referred to as being heterozygous for the added gene. More preferred is a transgenic plant that is homozygous for the added structural gene; *i.e.*, a transgenic plant that contains two added genes, one gene at the same locus on each chromosome of a chromosome pair. A homozygous transgenic plant can be obtained by sexually mating (selfing) an independent segregant transgenic plant that contains a single added gene, germinating some of the seed produced and analyzing the resulting plants produced for the gene of interest.

It is also to be understood that two different transgenic plants can also be mated to produce offspring that contain two independently segregating added, exogenous genes. Selfing of appropriate progeny can produce plants that are homozygous for both added, exogenous genes that encode a polypeptide of interest. Back-crossing to a parental plant and out-crossing with a non-transgenic plant are also contemplated, as is vegetative propagation.

Transformation of plant protoplasts can be achieved using methods based on calcium phosphate precipitation, polyethylene glycol treatment, electroporation, and

combinations of these treatments. See for example (Potrykus *et al.*, *Mol. Gen. Genet.*, 205:193-200 (1986); Lorz *et al.*, *Mol. Gen. Genet.*, 199:178, (1985); Fromm *et al.*, *Nature*, 319:791,(1986); Uchimiya *et al.*, *Mol. Gen. Genet.*:204:204, (1986); Callis *et al.*, *Genes and Development*, 1183,(1987); Marcotte *et al.*, *Nature*, 335:454, (1988), all of which the entirety is herein incorporated by reference).

Application of these systems to different plant strains depends upon the ability to regenerate that particular plant strain from protoplasts. Illustrative methods for the regeneration of cereals from protoplasts are described (Fujimura *et al.*, *Plant Tissue Culture Letters*, 2:74,(1985); Toriyama *et al.*, *Theor Appl. Genet.* 205:34. (1986); Yamada *et al.*, *Plant Cell Rep.*, 4:85, (1986); Abdullah *et al.*, *Biotechnology*, 4:1087, (1986), all of which the entirety is herein incorporated by reference).

To transform plant strains that cannot be successfully regenerated from protoplasts, other ways to introduce DNA into intact cells or tissues can be utilized. For example, regeneration of cereals from immature embryos or explants can be effected as described (Vasil, *Biotechnology*, 6:397,(1988), the entirety of which is herein incorporated by reference). In addition, "particle gun" or high-velocity microprojectile technology can be utilized (Vasil *et al.*, *Bio/Technology* 10:667, (1992), the entirety of which is herein incorporated by reference).

Using the latter technology, DNA is carried through the cell wall and into the cytoplasm on the surface of small metal particles as described (Klein *et al.*, *Nature*, 328:70, (1987); Klein *et al.*, *Proc. Natl. Acad. Sci. USA*, 85:8502-8505, (1988); McCabe *et al.*, *Biotechnology*, 6:923, (1988), all of which the entirety is herein incorporated by reference). The metal particles penetrate through several layers of cells and thus allow the transformation of cells within tissue explants.

Other methods of cell transformation can also be used and include but are not limited to introduction of DNA into plants by direct DNA transfer into pollen (Hess *et al.*, *Intern Rev. Cytol.*, 107:367, (1987); Luo *et al.*, *Plant Mol Biol. Reporter*, 6:165, (1988),

all of which the entirety is herein incorporated by reference), by direct injection of DNA into reproductive organs of a plant (Pena et al., *Nature*, 325:274, (1987), the entirety of which is herein incorporated by reference), or by direct injection of DNA into the cells of immature embryos followed by the rehydration of dessicated embryos (Neuhaus *et al.*, *Theor. Appl. Genet.*, 75:30, (1987), the entirety of which is herein incorporated by reference).

The regeneration, development, and cultivation of plants from single plant protoplast transformants or from various transformed explants is well known in the art (Weissbach and Weissbach, *In: Methods for Plant Molecular Biology*, (Eds.), Academic Press, Inc. San Diego, CA, (1988), the entirety of which is herein incorporated by reference). This regeneration and growth process typically includes the steps of selection of transformed cells, culturing those individualized cells through the usual stages of embryonic development through the rooted plantlet stage. Transgenic embryos and seeds are similarly regenerated. The resulting transgenic rooted shoots are thereafter planted in an appropriate plant growth medium such as soil.

The development or regeneration of plants containing the foreign, exogenous gene that encodes a protein of interest is well known in the art. Preferably, the regenerated plants are self-pollinated to provide homozygous transgenic plants, as discussed before. Otherwise, pollen obtained from the regenerated plants is crossed to seed-grown plants of agronomically important lines. Conversely, pollen from plants of these important lines is used to pollinate regenerated plants. A transgenic plant of the present invention containing a desired polypeptide is cultivated using methods well known to one skilled in the art.

There are a variety of methods for the regeneration of plants from plant tissue. The particular method of regeneration will depend on the starting plant tissue and the particular plant species to be regenerated.

Methods for transforming dicots, primarily by use of *Agrobacterium tumefaciens*, and obtaining transgenic plants have been published for cotton (U. S. Patent No. 5,004,863, U.S. Patent No. 5,159,135, U.S. Patent No. 5,518,908, all of which the entirety is herein incorporated by reference); soybean (U. S. Patent No. 5,569,834, U. S. Patent No. 5,416,011, McCabe *et al.*, *Biotechnology* 6:923, (1988), Christou *et al.*, *Plant Physiol.*, 87:671-674 (1988), all of which the entirety is herein incorporated by reference); *Brassica* (U. S. Patent No. 5,463,174, the entirety of which is herein incorporated by reference); peanut (Cheng *et al.*, *Plant Cell Rep.* 15: 653-657 (1996), McKently *et al.*, *Plant Cell Rep.* 14:699-703 (1995), all of which the entirety is herein incorporated by reference); papaya (Yang *et al.*, (1996), the entirety of which is herein incorporated by reference); pea (Grant *et al.*, *Plant Cell Rep.* 15:254-258, (1995), the entirety of which is herein incorporated by reference).

Transformation of monocotyledons using electroporation, particle bombardment, and *Agrobacterium* have also been reported. Transformation and plant regeneration have been achieved in asparagus (Bytebier *et al.*, *Proc. Natl. Acad. Sci. USA* 84:5345, (1987), the entirety of which is herein incorporated by reference); barley (Wan and Lemaux, *Plant Physiol* 104:37, (1994), the entirety of which is herein incorporated by reference); maize (Rhodes *et al.*, *Science* 240: 204, (1988), Gordon-Kamm *et al.*, *Plant Cell*, 2:603, (1990), Fromm *et al.*, *Bio/Technology* 8:833, (1990), Koziel *et al.*, *Bio/Technology* 11:194, (1993), Armstrong *et al.*, *Crop Science* 35:550-557, (1995), all of which the entirety is herein incorporated by reference); oat (Somers *et al.*, *Bio/Technology*, 10:1589, (1992), the entirety of which is herein incorporated by reference); orchardgrass (Horn *et al.*, *Plant Cell Rep.* 7:469, (1988), the entirety of which is herein incorporated by reference); rice (Toriyama *et al.*, *Theor Appl. Genet.* 205:34, (1986); Park *et al.*, *Plant Mol. Biol.*, 32: 1135-1148, (1996); Abedinia *et al.*, *Aust. J. Plant Physiol.* 24:133-141, (1997); Zhang and Wu, *Theor. Appl. Genet.* 76:835, (1988); Zhang *et al.* *Plant Cell Rep.* 7:379, (1988); Battraw and Hall, *Plant Sci.* 86:191-202, (1992); Christou *et al.*,

Bio/Technology 9:957, (1991), all of which the entirety is herein incorporated by reference); sugarcane (Bower and Birch, *Plant J.* 2:409, (1992), the entirety of which is herein incorporated by reference); tall fescue (Wang et al., *Bio/Technology* 10:691, (1992), the entirety of which is herein incorporated by reference), and wheat (Vasil et al., *Bio/Technology* 10:667, (1992), the entirety of which is herein incorporated by reference;
 5 U. S. Patent No. 5,631,152, the entirety of which is herein incorporated by reference.

Assays for gene expression based on the transient expression of cloned nucleic acid constructs have been developed by introducing the nucleic acid molecules into plant cells by polyethylene glycol treatment, electroporation, or particle bombardment

10 (Marcotte, *et al.*, *Nature*, 335: 454-457 (1988), the entirety of which is herein incorporated by reference; Marcotte, *et al.*, *Plant Cell*, 1: 523-532 (1989), the entirety of which is herein incorporated by reference; McCarty, *et al.*, *Cell* 66: 895-905 (1991), the entirety of which is herein incorporated by reference; Hattori, *et al.*, *Genes Dev.* 6: 609-618 (1992), the entirety of which is herein incorporated by reference; Goff, *et al.*, *EMBO J.* 9: 2517-2522 (1990), the entirety of which is herein incorporated by reference).
 15

Transient expression systems may be used to functionally dissect gene constructs (*See generally*, Mailga *et al.*, *Methods in Plant Molecular Biology*, Cold Spring Harbor Press (1995)).

Any of the nucleic acid molecules of the present invention may be introduced into
 20 a plant cell in a permanent or transient manner in combination with other genetic elements such as vectors, promoters enhancers etc. Further any of the nucleic acid molecules of the present invention may be introduced into a plant cell in a manner that allows for over expression of the protein or fragment thereof encoded by the nucleic acid molecule.

25 Cosuppression is the reduction in expression levels, usually at the level of RNA, of a particular endogenous gene or gene family by the expression of a homologous sense construct that is capable of transcribing mRNA of the same strandedness as the transcript

of the endogenous gene (Napoli *et al.*, *Plant Cell* 2: 279-289 (1990), the entirety of which is herein incorporated by reference; van der Krol *et al.*, *Plant Cell* 2: 291-299 (1990), the entirety of which is herein incorporated by reference). Cosuppression may result from stable transformation with a single copy nucleic acid molecule that is homologous to a nucleic acid sequence found with the cell (Prolls and Meyer, *Plant J.* 2:465-475 (1992), the entirety of which is herein incorporated by reference) or with multiple copies of a nucleic acid molecule that is homologous to a nucleic acid sequence found with the cell (Mittlesten *et al.*, *Mol. Gen. Genet.* 244: 325-330 (1994), the entirety of which is herein incorporated by reference). Genes, even though different, linked to homologous promoters may result in the cosuppression of the linked genes (Vaucheret, *C.R. Acad. Sci. III* 316: 1471-1483 (1993), the entirety of which is herein incorporated by reference).

This technique has, for example been applied to generate white flowers from red petunia and tomatoes that do not ripen on the vine. Up to 50% of petunia transformants that contained a sense copy of the chalcone synthase (CHS) gene produced white flowers or floral sectors; this was as a result of the post-transcriptional loss of mRNA encoding CHS (Flavell, *Proc. Natl. Acad. Sci. (U.S.A.)* 91:3490-3496 (1994)), the entirety of which is herein incorporated by reference). Cosuppression may require the coordinate transcription of the transgene and the endogenous gene, and can be reset by a developmental control mechanism (Jorgensen, *Trends Biotechnol.* 8:340344 (1990), the entirety of which is herein incorporated by reference; Meins and Kunz, In: *Gene Inactivation and Homologous Recombination in Plants* (Paszkowski, J., ed.), pp. 335-348. Kluwer Academic, Netherlands (1994), the entirety of which is herein incorporated by reference).

It is understood that one or more of the nucleic acids of the present invention including those comprising SEQ ID NO:1 through SEQ ID NO:18831 or complement thereof or fragments of either or other nucleic acid molecules of the present invention

may be introduced into a plant cell and transcribed using an appropriate promoter with such transcription resulting in the co-suppression of an endogenous protein.

Antisense approaches are a way of preventing or reducing gene function by targeting the genetic material (Mol *et al.*, *FEBS Lett.* 268: 427-430 (1990), the entirety of which is herein incorporated by reference). The objective of the antisense approach is to use a sequence complementary to the target gene to block its expression and create a mutant cell line or organism in which the level of a single chosen protein is selectively reduced or abolished. Antisense techniques have several advantages over other 'reverse genetic' approaches. The site of inactivation and its developmental effect can be manipulated by the choice of promoter for antisense genes or by the timing of external application or microinjection. Antisense can manipulate its specificity by selecting either unique regions of the target gene or regions where it shares homology to other related genes (Hiatt *et al.*, *In Genetic Engineering*, Setlow (ed.), Vol. 11, New York: Plenum 49-63 (1989), the entirety of which is herein incorporated by reference).

The principle of regulation by antisense RNA is that RNA that is complementary to the target mRNA is introduced into cells, resulting in specific RNA:RNA duplexes being formed by base pairing between the antisense substrate and the target mRNA (Green *et al.*, *Annu. Rev. Biochem.* 55: 569-597 (1986), the entirety of which is herein incorporated by reference). Under one embodiment, the process involves the introduction and expression of an antisense gene sequence. Such a sequence is one in which part or all of the normal gene sequences are placed under a promoter in inverted orientation so that the 'wrong' or complementary strand is transcribed into a noncoding antisense RNA that hybridizes with the target mRNA and interferes with its expression (Takayama and Inouye, *Crit. Rev. Biochem. Mol. Biol.* 25: 155-184 (1990), the entirety of which is herein incorporated by reference). An antisense vector is constructed by standard procedures and introduced into cells by transformation, transfection, electroporation, microinjection, or by infection, etc. The type of transformation and choice of vector will determine

whether expression is transient or stable. The promoter used for the antisense gene may influence the level, timing, tissue, specificity, or inducibility of the antisense inhibition.

It is understood that protein synthesis activity in a plant cell may be reduced or depressed by growing a transformed plant cell containing a nucleic acid molecule whose non-transcribed strand encodes a protein or fragment thereof.

Antibodies have been expressed in plants (Hiatt *et al.*, *Nature* 342:76-78 (1989), the entirety of which is herein incorporated by reference; Conrad and Fielder, *Plant Mol. Biol.* 26: 1023-1030 (1994), the entirety of which is herein incorporated by reference). Cytoplasmic expression of a scFv (single-chain Fv antibodies) has been reported to delay infection by artichoke mottled crinkle virus. Transgenic plants that express antibodies directed against endogenous proteins may exhibit a physiological effect (Philips *et al.*, *EMBO J.* 16: 4489-4496 (1997), the entirety of which is herein incorporated by reference; Marion-Poll, *Trends in Plant Science* 2: 447-448 (1997), the entirety of which is herein incorporated by reference). For example, expressed anti-abscisic antibodies reportedly result in a general perturbation of seed development (Philips *et al.*, *EMBO J.* 16: 4489-4496 (1997)).

Antibodies that are catalytic may also be expressed in plants (abzymes). The principle behind abzymes is that since antibodies may be raised against many molecules, this recognition ability can be directed toward generating antibodies that bind transition states to force a chemical reaction forward (Persidas, *Nature Biotechnology* 15:1313-1315 (1997), the entirety of which is herein incorporated by reference; Baca *et al.*, *Ann. Rev. Biophys. Biomol. Struct.* 26:461-493 (1997), the entirety of which is herein incorporated by reference). The catalytic abilities of abzymes may be enhanced by site directed mutagenesis. Examples of abzymes are, for example, set forth in U.S. Patent No: 5,658,753; U.S. Patent No. 5,632,990; U.S. Patent No. 5,631,137; U.S. Patent 5,602,015; U.S. Patent No. 5,559,538; U.S. Patent No. 5,576,174; U.S. Patent No. 5,500,358; U.S.

Patent 5,318,897; U.S. Patent No. 5,298,409; U.S. Patent No. 5,258,289 and U.S. Patent No. 5,194,585, all of which are herein incorporated in their entirety.

It is understood that any of the antibodies of the present invention may be expressed in plants and that such expression can result in a physiological effect. It is also understood that any of the expressed antibodies may be catalytic.

In addition to the above discussed procedures, practitioners are familiar with the standard resource materials which describe specific conditions and procedures for the construction, manipulation and isolation of macromolecules (e.g., DNA molecules, plasmids, etc.), generation of recombinant organisms and the screening and isolating of clones, (see for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Press (1989); Mailga *et al.*, *Methods in Plant Molecular Biology*, Cold Spring Harbor Press (1995), the entirety of which is herein incorporated by reference; Birren *et al.*, *Genome Analysis: Analyzing DNA*, 1, Cold Spring Harbor, New York, the entirety of which is herein incorporated by reference).

The nucleotide sequence provided in SEQ ID NO:1, through SEQ ID NO:18831 or fragment thereof, or complement thereof, or a nucleotide sequence at least 90% identical, preferably 95%, identical even more preferably 99% or 100% identical to the sequence provided in SEQ ID NO:1 through SEQ ID NO:18831 or fragment thereof, or complement thereof, can be "provided" in a variety of mediums to facilitate use fragment thereof. Such a medium can also provide a subset thereof in a form that allows a skilled artisan to examine the sequences.

In one application of this embodiment, a nucleotide sequence of the present invention can be recorded on computer readable media. As used herein, "computer readable media" refers to any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as floppy discs, hard disc, storage medium, and magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these

categories such as magnetic/optical storage media. A skilled artisan can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising computer readable medium having recorded thereon a nucleotide sequence of the present invention.

5 As used herein, "recorded" refers to a process for storing information on computer readable medium. A skilled artisan can readily adopt any of the presently known methods for recording information on computer readable medium to generate media comprising the nucleotide sequence information of the present invention. A variety of data storage structures are available to a skilled artisan for creating a computer readable
10 medium having recorded thereon a nucleotide sequence of the present invention. The choice of the data storage structure will generally be based on the means chosen to access the stored information. In addition, a variety of data processor programs and formats can be used to store the nucleotide sequence information of the present invention on computer readable medium. The sequence information can be represented in a word processing
15 text file, formatted in commercially-available software such as WordPerfect and Microsoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like. A skilled artisan can readily adapt any number of data processor structuring formats (e.g. text file or database) in order to obtain computer readable medium having recorded thereon the nucleotide sequence
20 information of the present invention.

By providing one or more of nucleotide sequences of the present invention, a skilled artisan can routinely access the sequence information for a variety of purposes. Computer software is publicly available which allows a skilled artisan to access sequence information provided in a computer readable medium. The examples which follow
25 demonstrate how software which implements the BLAST (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) and BLAZE (Brutlag *et al.*, *Comp. Chem.* 17:203-207 (1993), the entirety of which is herein incorporated by reference) search algorithms on a Sybase

system can be used to identify open reading frames (ORFs) within the genome that contain homology to ORFs or proteins from other organisms. Such ORFs are protein-encoding fragments within the sequences of the present invention and are useful in producing commercially important proteins such as enzymes used in amino acid

5 biosynthesis, metabolism, transcription, translation, RNA processing, nucleic acid and a protein degradation, protein modification, and DNA replication, restriction, modification, recombination, and repair.

The present invention further provides systems, particularly computer-based systems, which contain the sequence information described herein. Such systems are
10 designed to identify commercially important fragments of the nucleic acid molecule of the present invention. As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware means of the computer-based systems of the present invention comprises a central processing unit (CPU), input
15 means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention.

As indicated above, the computer-based systems of the present invention comprise a data storage means having stored therein a nucleotide sequence of the present
20 invention and the necessary hardware means and software means for supporting and implementing a search means. As used herein, "data storage means" refers to memory that can store nucleotide sequence information of the present invention, or a memory access means which can access manufactures having recorded thereon the nucleotide sequence information of the present invention. As used herein, "search means" refers to
25 one or more programs which are implemented on the computer-based system to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the

sequence of the present invention that match a particular target sequence or target motif.

A variety of known algorithms are disclosed publicly and a variety of commercially available software for conducting search means are available and can be used in the computer-based systems of the present invention. Examples of such software include, but are not limited to, MacPattern (EMBL), BLASTIN and BLASTIX (NCBIA). One of the available algorithms or implementing software packages for conducting homology searches can be adapted for use in the present computer-based systems.

The most preferred sequence length of a target sequence is from about 10 to 100 amino acids or from about 30 to 300 nucleotide residues. However, it is well recognized that during searches for commercially important fragments of the nucleic acid molecules of the present invention, such as sequence fragments involved in gene expression and protein processing, may be of shorter length.

As used herein, "a target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequences or sequence(s) are chosen based on a three-dimensional configuration which is formed upon the folding of the target motif. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzymatic active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, promoter sequences, cis elements, hairpin structures and inducible expression elements (protein binding sequences).

Thus, the present invention further provides an input means for receiving a target sequence, a data storage means for storing the target sequences of the present invention sequence identified using a search means as described above, and an output means for outputting the identified homologous sequences. A variety of structural formats for the input and output means can be used to input and output information in the computer-based systems of the present invention. A preferred format for an output means ranks fragments of the sequence of the present invention by varying degrees of homology to the

target sequence or target motif. Such presentation provides a skilled artisan with a ranking of sequences which contain various amounts of the target sequence or target motif and identifies the degree of homology contained in the identified fragment.

A variety of comparing means can be used to compare a target sequence or target motif with the data storage means to identify sequence fragments sequence of the present invention. For example, implementing software which implement the BLAST and BLAZE algorithms (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) can be used to identify open frames within the nucleic acid molecules of the present invention. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer-based systems of the present invention. Having now generally described the invention, the same will be more readily understood through reference to the following examples which are provided by way of illustration, and are not intended to be limiting of the present invention, unless specified.

Example 1

The cDNA library of the present invention designated Lib3061, is prepared from maize (DK604, Dekalb Genetics, Dekalb, Illinois U.S.A.) endosperm tissue from plants at 32 days after pollination. Seeds are planted at a depth of approximately 3 cm into 2-3 inch peat pots containing Metro 200 growing medium.

After 2-3 weeks growth they are transplanted into 10 inch pots containing the same growing medium. Plants are watered daily before transplantation and three times a week after transplantation. Peters 15-16-17 fertilizer is applied three times per week after transplanting at a strength of 150 ppm N. Two to three times during the lifetime of the plant, from transplanting to flowering, a total of 900 mg Fe is added to each pot. Maize plants are grown in a greenhouse in 15 hr day/9 hr night cycles. The daytime temperature is approximately 80°F and the nighttime temperature is approximately 70°F.

Supplemental lighting is provided by 1000 W sodium vapor lamps. Tissue is collected

from V10+ stage plants. The corn plant is beyond the V10 stage and the ear shoots, which are ready for fertilization, are enclosed in a paper bag prior to silk emergence to withhold pollen. Thirty-two days after pollination, the ears are pulled out and the kernels are removed from the cob. Each kernel is dissected into the embryo and the endosperm and the aleurone layer is removed. After dissection, the endosperms are immediately transferred to liquid nitrogen. The harvested tissue is then stored at 80°C until RNA preparation. The RNA is purified from the stored tissue and the cDNA library is constructed as described in Example 2. SEQ ID NO: 1 through SEQ ID NO: 13524 are from LIB3061.

The cDNA library of the present invention designated LIB3077, is prepared from *Zea mays* 4 cm ears. The *Zea mays* H99 is used for collection. Seeds are planted at a depth of approximately 3 cm in soil into 2"-3" peat pots containing Metro 200 growing medium. After 2-3 weeks growth, they are transplanted into 10" pots containing the same. Plants are watered daily before transplantation and ~ 3 times a week after transplantation. Peters 15-16-17 fertilizer is applied ~ 3X per week after transplanting, at a strength of 150 ppm N. 2 -3 times during the life time of the plant, from transplanting to flowering , a total of ~ 900 mg Fe is added to each pot. Corn plants are grown in the green house in 15hr day /9hr night cycles. The daytime temperature is 80° F and the night time temperature is 70° F . Lighting is provided by 1000 W sodium vapor lamps.

Immature 4 cm ears are harvested from 8 week old plants and are approximately 3.5-4.5 cm long. Kernels are dissected away from cob, frozen in liquid nitrogen and stored at - 80°C until preparation of RNA. Total RNA generated from 4 cm ears is used for constructing a target cDNA library. The cDNA library is constructed as described in Example 2. SEQ ID NO: 13525 through SEQ ID NO: 13565 are from LIB3077.

The cDNA library of the present invention designated LIB36, is a normalized library prepared from maize (DK604, Dekalb Genetics, Dekalb, Illinois U.S.A) leaves harvested from V8 stage plants. Seeds are planted at a depth of approximately 3 cm in

soil into 2"-3" peat pots containing Metro 200 growing medium. After 2-3 weeks growth, they are transplanted into 10" pots containing the same. Plants are watered daily before transplantation and three times a week after transplantation. Peters 15-16-17 fertilizer is applied three times per week after transplanting at a strength of 150 ppm N.

- 5 Two to three times during the lifetime of the plant, from transplanting to flowering, a total of 900 mg Fe is added to each pot. Maize plants are grown in a greenhouse in 15hr day /9hr night cycles. The daytime temperature is 80°F and the nighttime temperature is 70°F. Lighting is provided by 1000 W sodium vapor lamps. Tissue is collected from V8 stage plants. The older more juvenile leaves which are in a basal position as well as the
10 younger more adult leaves which are more apical were all cut at the base of the leaves. The leaves are then pooled and then immediately transferred to liquid nitrogen containers in which the pooled leaves are then crushed. The harvested tissue is then stored at -80°C until RNA preparation.

- For the construction of a cDNA library, the Superscript™ Plasmid System for
15 cDNA synthesis and Plasmid Cloning (Gibco BRL, Life Technologies, Gaithersburg, MD) or similar system, following the conditions suggested by the manufacturer, is used. Poly A+ mRNA is purified from the total RNA preparation using Dynabeads® Oligo (dT)₂₅ (Dynal Inc., Lake Success, NY), or equivalent methods. Clones are selected and the plasmid DNA is isolated using a commercially available kit for normalizing the
20 cDNA library. This library is normalized at a cot value of 10.

- Approximately 1 million clones from the cDNA library are used for the generation of double and single stranded plasmid DNA. Double stranded plasmid DNA is used as a template for preparation of biotinylated RNA transcripts. Single stranded plasmid DNA from the cDNA library is hybridized with biotinylated RNA transcripts
25 from the same library. Hybridized molecules are removed with Streptavidin beads (Dynal Inc. Lake Success, NY). Remaining single stranded molecules are partially

repaired with "Klenow" before transforming *E. coli* for the generation of a normalized cDNA library. SEQ ID NO: 13566 through SEQ ID NO: 15515 are from LIB36.

The cDNA library of the present invention designated LIB83, is a normalized library prepared from maize leaves harvested from V8 stage plants. Maize DK604 (Dekalb Genetics, Dekalb, Illinois U.S.A) is used. Seeds are planted at a depth of approximately 3 cm in soil into 2"-3" peat pots containing Metro 200 growing medium. After 2-3 weeks growth, they are transplanted into 10" pots containing the same. Plants are watered daily before transplantation and ~ 3 times a week after transplantation. Peters 15-16-17 fertilizer is applied ~ 3X per week after transplanting, at a strength of 150 ppm N. 2-3 times during the life time of the plant, from transplanting to flowering, a total of ~ 900 mg Fe is added to each pot. Plants are grown in a green house in 15hr day /9hr night cycles. The daytime temperature is 80° F and the night time temperature was 70° F. Lighting was provided by 1000 W sodium vapor lamps. Tissue is collected from V8 stage plants. The older more juvenile leaves which are in a basal position as well as the younger more adult leaves which are more apical were all cut at the base of the leaves. The leaves are then pooled and then immediately transferred to liquid nitrogen containers in which the pooled leaves are then crushed. The harvested tissue is then stored at -80°C until RNA preparation. For the construction of a cDNA library, the Superscript™ Plasmid System for cDNA synthesis and Plasmid Cloning (Gibco BRL, Life Technologies, Gaithersburg, MD) or similar system, following the conditions suggested by the manufacturer, is used. Poly A+ mRNA is purified from the total RNA preparation using Dynabeads® Oligo (dT)₂₅ (Dynal Inc., Lake Success, NY), or equivalent methods. Clones are selected and the plasmid DNA is isolated using a commercially available kit for normalizing the cDNA library. This library is normalized at a ratio of 1:50.

Approximately 1 million clones from the cDNA library are used for the generation of double and single stranded plasmid DNA. Double stranded plasmid DNA is used as a template for preparation of biotinylated RNA transcripts. Single stranded

plasmid DNA from the cDNA library is hybridized with biotinylated RNA transcripts from the same library. Hybridized molecules are removed with Streptavidin beads (Dynal Inc. Lake Success, NY). Remaining single stranded molecules are partially repaired with "Klenow" before transforming *E. coli* for the generation of a normalized
 5 cDNA library. SEQ ID NO: 15516 through SEQ ID NO: 17001 are from LIB83.

The cDNA library of the present invention designated LIB84, is a normalized library prepared from maize (DK604, Dekalb Genetics, Dekalb, Illinois U.S.A) leaves harvested from V8 stage plants. Seeds are planted at a depth of approximately 3 cm in soil into 2"-3" peat pots containing Metro 200 growing medium. After 2-3 weeks
 10 growth, they are transplanted into 10" pots containing the same. Plants are watered daily before transplantation and three times a week after transplantation. Peters 15-16-17 fertilizer is applied three times per week after transplanting at a strength of 150 ppm N. Two to three times during the lifetime of the plant, from transplanting to flowering, a total of 900 mg Fe is added to each pot. Plants were grown in a greenhouse in 15hr day
 15 /9hr night cycles. The daytime temperature was 80°F and the nighttime temperature was 70 °F. Lighting was provided by 1000 W sodium vapor lamps. Tissue was collected from V8 stage plants. The older more juvenile leaves which are in a basal position as well as the younger more adult leaves which are more apical were all cut at the base of the leaves. The leaves are then pooled and then immediately transferred to liquid
 20 nitrogen containers in which the pooled leaves are then crushed. The harvested tissue is then stored at -80°C until RNA preparation. SEQ ID NO: 17002 through SEQ ID NO: 18831 are from LIB84.

For the construction of a cDNA library, the Superscript™ Plasmid System for cDNA synthesis and Plasmid Cloning (Gibco BRL, Life Technologies, Gaithersburg,
 25 MD) or similar system, following the conditions suggested by the manufacturer, is used. Poly A+ mRNA is purified from the total RNA preparation using Dynabeads® Oligo (dT)₂₅ (Dynal Inc., Lake Success, NY), or equivalent methods. Clones are selected and

the plasmid DNA is isolated using a commercially available kit for normalizing the cDNA library. This library is normalized at a ratio of 1:10.

Approximately 1 million clones from the cDNA library are used for the generation of single stranded plasmid DNA. Appropriate Oligonucleotide from 3' end of single stranded circle are used for primer extension in the presence of biotinylated dideoxynucleotides. The reaction is controlled to give 200-300 bp extension products. Single stranded circle cDNA library with primer extension products is denatured and hybridized under appropriate conditions. Hybridized molecules are removed with Streptavidin beads (Dynal Inc. Lake Success, NY). Remaining single stranded molecules are partially repaired with "Klenow" before transforming *E. coli* for the generation of a normalized cDNA library..

Example 2

The stored RNA is purified using Trizol reagent from Life Technologies (Gibco BRL, Life Technologies, Gaithersburg, Maryland U.S.A.), essentially as recommended by the manufacturer. Poly A⁺ RNA (mRNA) is purified using magnetic oligo dT beads essentially as recommended by the manufacturer (Dynabeads, Dynal Corporation, Lake Success, New York U.S.A.).

Construction of plant cDNA libraries is well-known in the art and a number of cloning strategies exist. A number of cDNA library construction kits are commercially available. The SuperscriptTM Plasmid System for cDNA synthesis and Plasmid Cloning (Gibco BRL, Life Technologies, Gaithersburg, Maryland U.S.A.) is used, following the conditions suggested by the manufacturer.

Example 3

The cDNA libraries are plated on LB agar containing the appropriate antibiotics for selection and incubated at 37° for a sufficient time to allow the growth of individual colonies. Single selective media colonies are individually placed in each well of a 96-well microtiter plates containing LB liquid including the selective antibiotics. The plates

are incubated overnight at approximately 37°C with gentle shaking to promote growth of the cultures. The plasmid DNA is isolated from each clone using Qiaprep plasmid isolation kits, using the conditions recommended by the manufacturer (Qiagen Inc., Santa Clara, California U.S.A.).

- 5 Template plasmid DNA clones are used for subsequent sequencing. For sequencing, the ABI PRISM dRhodamine Terminator Cycle Sequencing Ready Reaction Kit with AmpliTaq® DNA Polymerase, FS, is used (PE Applied Biosystems, Foster City, California U.S.A.).

We claim:

1. A substantially purified nucleic acid molecule that encodes a maize protein or fragment thereof comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 13524.

5 2. A substantially purified maize protein or fragment thereof, wherein said maize protein is encoded by a nucleic acid molecule that comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 13524 .

3. A transformed plant having a nucleic acid molecule which comprises:

10 (a) an exogenous promoter region which functions in a plant cell to cause the production of a mRNA molecule;

(b) a structural nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 13524 or complements thereof;

15 (c) a 3' non-translated sequence that functions in said plant cell to cause termination of transcription and addition of polyadenylated ribonucleotides to a 3' end of said mRNA molecule.

4. The transformed plant according to claim 3, wherein said structural nucleic acid molecule is a complement of any of the nucleic acid sequences of SEQ ID NO: 1 through SEQ ID NO: 13524.

5. The transformed plant according to claim 4, wherein said plant is maize, soybean, cotton or wheat.

6. The transformed plant according to claim 4, wherein said plant is maize.

7. The transformed plant according to claim 4, wherein said plant is soybean.

Abstract

Expressed Sequence Tags (ESTs) isolated from maize are disclosed. The ESTs provide a unique molecular tool for the targeting and isolation of novel genes for plant protection and improvement. The disclosed ESTs have utility in the development of new strategies for understanding critical plant developmental and metabolic pathways. The disclosed ESTs have particular utility in isolating genes and promoters, identifying and mapping the genes involved in developmental and metabolic pathways, and determining gene function. Sequence homology analyses using the ESTs provided in the present invention, will result in more efficient gene screening for desirable agronomic traits. An expanding database of these select pieces of the plant genomics puzzle will quickly expand the knowledge necessary for subsequent functional validation, a key limitation in current plant biotechnology efforts.

Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15503)B

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled Nucleic Acid Molecules and Other Molecules Associated With Plants, the specification of which is filed herewith unless the following box is checked:

☐ was filed on ____;
as United States Application Number ____; and
was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Claimed

☐ Yes ☐ No

(Application No.)

(Country)

(Day/Month/Year Filed)

☐ Yes ☐ No

(Application No.)

(Country)

(Day/Month/Year Filed)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Lawrence M. Lavin, Jr.
Dennis R. Hoerner, Jr.
Richard H. Shear

Reg. No. 30,768
Reg. No. 30,914
Reg. No. 26,583

Robert A. Auchter, Reg. No. 38,069
Jeffrey I. Auerbach, Reg. No. 32,680
Melvin L. Barnes, Jr. Reg. No. 38,375
William D. Belanger, Reg. No. 40,509
Michael J. Bell, Reg. No. 39,604
John A. Bendrick, Reg. No. 341,612
Celine T. Callahan, Reg. No. 34,301
Cono A. Carrano, Reg. No. 39,623
June E. Cohan, Reg. No. 43,741
Joseph V. Colaianni, Reg. No. 39,948
Chris Comuntzis, Reg. No. 31,097
Mary S. Consalvi, Reg. No. 32,212
Jenny Wei-Chun Chen, Reg. No. 44,604
Ben M. Davidson, Reg. No. 38,424
Ross E. Davidson, Reg. No. 41,698
James F. Davis, Reg. No. 21,072
Thomas M. Dunham, Reg. No. 39,965
Thomas C. Fiala, Reg. No. 43,610
Joel M. Freed, Reg. No. 25,101
Vernon Randall Gard, Reg. No. 33,886
Alan M. Grimaldi, Reg. No. 26,599
Sharmini Nathan Green, Reg. No. 41,410
Alexander J. Hadjis, Reg. No. 36,540
Albert P. Halluin, Reg. No. 25,227
Leslie L. Jacobs, Jr., Reg. No. 40,659
Derek J. Jardieu, Reg. No. 44,483

Christopher L. Kelley, Reg. No. 42,714
Brian S. Y. Kim, Reg. No. 41,114

Richard H. Kjeldgaard, Reg. No. 30,186
Andrew R. Kopsidas, Reg. No. 42,759
David J. Kulik, Reg. No. 36,576
Viola T. Kung, Reg. No. 41,131
Robert C. Laurenson, Reg. No. 34,206

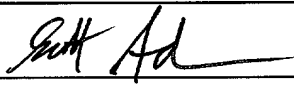
Joseph P. Lavelle, Reg. No. 31,036
Don F. Livornese, Reg. No. 32,040
Christopher A. Mathews, Reg. No. 35,944
David R. Marsh, Reg. No. 41,408
Joseph A. Micallef, Reg. No. 39,772
Erik B. Milch, Reg. No. 42,887
Anthony D. Miller, Reg. No. 34,394
Matthew J. Moore, Reg. No. 42,012
Karen L. Nicastro, Reg. No. 35,968
Bradley J. Olson, Reg. No. 40,750
Andrew Y. Piatnicia, Reg. No. 40,772
Timothy W. Riffe, Reg. No. 43,881
Andrea G. Reister, Reg. No. 36,253
Paul D. Roath, Reg. No. 45,045
Stephen J. Rosenman, Reg. No. 29,209
Timothy L. Scott, Reg. No. 37,931
Anthony W. Shaw, Reg. No. 30,104
J. David Smith, Reg. No. 39,839
Michael J. Songer, Reg. No. 39,841
Jennifer A. Tipsord, Reg. No. 40,205
William K. West, Reg. No. 22,057
Adam K. Whiting, Reg. No. 44,400
Robert J. Worrall, Reg. No. 37,969

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Direct Telephone Calls to: 314-737-6670

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor	Scott E. Andersen
Inventor's signature	 Date 4/11/00
Residence	St. Louis, Missouri USA
Citizenship	USA
Post Office Address	1984 Oberlin Court, St. Louis, Missouri 63146

Full name of second inventor	Dane K. Fisher
Inventor's signature	Date
Residence	O'Fallon, Missouri USA
Citizenship	USA
Post Office Address	6504 Sprucefield Drive, O'Fallon, Missouri 63366

Full name of third inventor	
Inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15503)B

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Prior Foreign Application(s)			Priority Claimed
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<u> </u> (Application No.)	<u> </u> (Country)	<u> </u> (Day/Month/Year Filed)	
			<input type="checkbox"/> Yes <input type="checkbox"/> No
<u> </u> (Application No.)	<u> </u> (Country)	<u> </u> (Day/Month/Year Filed)	

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Robert C. Laurenson, Reg. No. 34,206

Joseph P. Lavelle, Reg. No. 31,036
Don F. Livornese, Reg. No. 32,040
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Joseph A. Micallef, Reg. No. 39,772
Erik B. Milch, Reg. No. 42,887
Anthony D. Miller, Reg. No. 34,394
Matthew J. Moore, Reg. No. 42,012
Karen L. Nicastro, Reg. No. 35,968
Bradley J. Olson, Reg. No. 40,750
Andrew Y. Piatnicia, Reg. No. 40,772
Timothy W. Riffe, Reg. No. 43,881
Andrea G. Reister, Reg. No. 36,253
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Full name of sole or first inventor Scott E. Andersen	
Inventor's signature	Date
Residence	St. Louis, Missouri USA
Citizenship	USA
Post Office Address	1984 Oberlin Court, St. Louis, Missouri 63146

Full name of second inventor Dane K. Fisher	
Inventor's signature <i>Dane K. Fisher</i>	Date <i>04/11/2000</i>
Residence	O'Fallon, Missouri USA
Citizenship	USA
Post Office Address	6504 Sprucefield Drive, O'Fallon, Missouri 63366

Full name of third inventor	
Inventor's signature	Date
Residence	
Citizenship	
Post Office Address	

<110> Andersen, Scott E.
Fisher, Dane K.

<120> Nucleic Acid Molecules and Other Molecules Associated With
Plants

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 gaagagtatt agtagcagcg ctcataaaag ctacagttcc gtctctattc tcagctatgt 300
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<210> 16
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 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-C8

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gagacgaaga agctgctgga taagctcggt gtgctcaagc ttaacggagg gctcgggacg 360
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<210> 17

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D7

<400> 17

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gcacggatcg aaaagctttc ggaagtaaac ccgatgcttg gcttccgtgg ctgcaggctt 180
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ccgcaggaat tgggacatca ggtggccctt atccgtcaag tcgctaaca agttttcacc 360
agtatgggga aaactattgg gtacaagatc ggaacgatga ttgagattcc cagggcagct 420
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<210> 18

<211> 319

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F12

<400> 18

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taccagaggt ctgacttcga aggcattctc cgtgctatgg atggactttc agtgactatt 240
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cgtgaactgt gttctgaga 319

<210> 19
<211> 329
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-041-Q1-K1-C5
<400> 19

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ggagcaggct gaattcttct cctttggaac gaacgacctc acgcagatga cctttggcta 180
cagcagggat gatgtgggga agttcatccc catttatctg gctcagggca tcctccagca 240
tgacccttc gaggttctcg accagagagg agtgggcgag ctggttaagc ttgctacaga 300
gaggggcccgc aaagctaggc ctaacttga 329

<210> 20
<211> 422
<212> DNA
<213> Zea mays
<223> unsure at all n locations
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<400> 20

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acttctggac cctcccctcc acgagtctct tccagaaggg aacgtcgagg aaatcgtgcg 180
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gctaacagaa atgcaaggcc gtgccatctt tgaagctgct ataacgatga ccaaccaggg 360

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tc 422

<210> 21
<211> 330
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-002-Q1-K2-D12

<400> 21

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cgctatgcta gctgcagctc acgtgcttgt ctgaggggtgc ctttgctcga tggcagtcgg 180
atctgctgct gacgggtgcat gtggtgattt acaatactac tatgacagag ccatgctctg 240
tgaaaagtat tagtagcatg gtcataaaa gctacagttc cgtatatttt ctcagctatg 300
taaaactttc aaactgctca tgcttaaaac 330

<210> 22
<211> 368
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-002-Q1-K2-H10

<400> 22

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tggaacctg 368

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<211> 213

<212> DNA
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 <223> Clone ID: LIB3061-002-Q1-K1-H10
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 tcacaaaaga agttgttgaa gccatggctt cct 213

<210> 24
 <211> 308
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-B2
 <400> 24
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 ggcgagattg tcatccatgc tcagcgttg cagcaacaac taaaacaca accagggctc 240
 ctcccttttg atgagatcct gttctgcaac attgggaatc ctcaatccct tggtcagcaa 300
 cctgtgac 308

<210> 25
 <211> 294
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-D7
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 tgtagtttgc gtcggaatag atatgttttt ttactcttcg tggggcagtt ttgtactgg 180
 ggattcataa ggactctgat tatgggtgcgt tcggaactta taataataag cacatgaaat 240

tttgcttcaa aaaaaaacta tatcacccctc aatactacaa caacagtcag ccac 294

<210> 26
 <211> 387
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-017-Q1-K1-E11
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 gcagcgcttc acggccgccca cgctggagca cggcatgcac ccgccggtct ctcccaagcc 180
 cgagtggcgc aagctcatgg acgagatggc ggtcgtggcc acggaggagt accgctccgt 240
 cgtcgtcaag gagccgcgct tcgtcgagta cttcagatcg gctacaccgg agaccgagta 300
 cgggaggatg aacatcgcca gccggccagc caagaggagg cccggcggcg gcacacgac 360
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<210> 27
 <211> 375
 <212> DNA
 <213> Zea mays
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 atcaacagcg acgtcgagaa ctccgagcac aagttcgtgc tgaaggacaa gaagaagccg 180
 atcatcttct cgatggcgcg tctcgaccgc gtgaagaaca tgacaggcct ggtggagatg 240
 tacggcaaga acgcgcgcct gagggagctg gcgaacctcg tgatcgtcgc cggtgaccac 300
 ggcaaggagt ccaaggacag ggaggagcat gcggagttca agaagatgta cagcctcatc 360
 gacgagtaca agttg 375

<210> 28
 <211> 424

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-A12

<400> 28

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 tctactccga gaggtgatg acctgaccg gcgtgtacgg gttctggaag tacgtgagca 180
 acctggagag gcgcgagacc cgccgctaca tcgagatgtt ctacgccctg aagtaccgta 240
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 gcccaggccg gagaaccatc gcctgcattt cgatctgttt caccgcaatt cgcattgtta 360
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 ttcc 424

<210> 29
 <211> 337
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-026-Q1-K1-D3

<400> 29

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 caacttcttt gacaaatgca aggcagatcc gagctactgc gacaagatct cacagggcgg 240
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<210> 30
 <211> 384
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-056-Q1-K1-D8

<400> 30

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tacgaaacgt tcggcctgac tgtg 384

<210> 31
<211> 379
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-014-Q1-K1-D4
<400> 31

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cactgtttac taccctata cgaaaccga caagagactc actgccttgc atcctgaaat 180
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gatcgagatg tacggcatga tcgcgcgcct gagggagctg tcgaacctcg tgatcgttgc 360
cgggtgaccac tgcaaggag 379

<210> 32
<211> 439
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-015-Q1-K1-A12
<400> 32

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 gctactggga caagatctc 439

<210> 33
 <211> 352
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-005-Q1-K1-C9

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 tgcggtctgc caacgatcgc gacctgccat ggtggccctg ctgagatcat cgtggacggg 180
 gtatctggcc tgcacattga cccttaccac agcgacaagg ccgcggatat cctgggtcaac 240
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<210> 34
 <211> 326
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-016-Q1-K1-G2

<400> 34
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 ggctcgttgg agatgtacgg caagaacgcy cgctgagggg agctggcgaa cctcgtgata 180
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 atgaaccggg ttccgcacgg ggagct 326

<210> 35
 <211> 451
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-028-Q1-K1-A9

<400> 35

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 gaagatgtac agcctcatcg acgagtacaa gttgaagggc catatccggt ggatctcggc 360
 gcagatgaac cgcgtccgca acgggggagct gtaccgctac atttgcgata cgaagggcgc 420
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<210> 36
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-004-Q1-K1-F9

<400> 36

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 tactctggat ggtttctgta ccgatacctg ctttttcagg aaaaccggaa agaattggcc 240
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 ttgtaattct atttatctcg ccctgtttgg ttctgaggaa ttgaaaaata atccaatggg 360
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<210> 37

<211> 420
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 <223> Clone ID: LIB3061-028-Q1-K1-C1

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 catgtagctg cattgattaa tgatgctgtt gggacgctgg cgggagcaag gtactacgac 180
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<210> 38
 <211> 418
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-G12

 <400> 38

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<210> 39
 <211> 295
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-G11

<400> 39

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ggcccgacc cagatcttga gcatctggga ccaggcagac attgtcaagg tcagcgaagt 240
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<210> 40

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A12

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aaggctacat ctgatctgtt gcttgtgcag tctgatcttt acaccttggg tgatggcttt 360
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<210> 41

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A1

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aaaccgcagc tgggtgcagct attcggttct tcgacaaagc gattggaatt aatgttcccc 300
gctcaagggt tctcccagtg aaggctacat ctgatctggt gcttgtgcag tctgatcttt 360
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<210> 42

<211> 319

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G11

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ctcatctctt acgaaggaag agttcagctt ttggagattg cccaagtacc tgatgagcat 240
gtgaatgagt ttaaataaat cgagaagttt aagatattca acactaaciaa cttgtgggtg 300
aacctttaag ctgtcaaga 319

<210> 43

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G11

<400> 43

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gcattcgtgc agcctgcgtt ctacgaagcg ttcggcctga ctgtgatcga gtccatgacg 360
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<210> 44
 <211> 419
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D9

<400> 44

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gtggatctcg gcgcagatga accgcgtccg caacggggag ctgtaccgct acatttgcca 360
tacgaagggc gcattcgtgc agcctgcgtt ctacgaagcg ttcggcctga ctgtgatcg 419
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<210> 45
 <211> 229
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H5

<400> 45

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acagaatcta tgagacgtac acctggaagc tctacttcga gaggtgatg acctgaccg 120
gcgtgtacgg cttctggaag tacgtgagca tactgtagag gcacgagacc ctccgctaca 180
tcgagatgta ctacgccttg aagcaccgga tcctggcaag ccaggttcc 229
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<210> 46
 <211> 379
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-F2

<400> 46

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 ggggtatctg gcctgcacat tgacccttac cacagcgaca aggccgcgga taccctggtc 180
 aacttctttg acaaatgcaa ggcagatccg agctactggg acaagatctc acagggcggc 240
 ctgcagagaa tttatgagaa gtacacctgg aagctctact ccgagaggct gatgacctg 300
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 tacatcgaga tgttctacg 379

<210> 47
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-022-Q1-K1-C2
 <400> 47

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 aaggtcattg gtactgagca cacagacatc attcgcgttc cgttcagaaa tgagaatggc 120
 atcctccgca agtggatctc tcgttttgat gtctggccat acctggagac atacactgag 180
 gatgtttcca gtgaaataat gaaagaaatg caggccaagc ctgaccttat cattggcaac 240
 tacagcgatg gcaacctagt cgccactctg ctcgcacaca agttgggagt cactcagtgt 300
 accatcgctc atgccttggg gaaaaccaa taccccaact cggacatcta cttggacaag 360
 ttcgacagcc agtaccactt ctcttgccag ttcacagctg accttattgc catgaaccac 420
 actg 424

<210> 48
 <211> 409
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-008-Q1-K1-H11
 <400> 48

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ccgagcacaa gttcgtgctg aaggacaaga agaagccgat catcttctcg atggcgcgctc 180
tcgaccgcgt gaagaacatg acaggcctgg tcgagatgta cggcaagaac gcgcgcctga 240
gggagctggc gaacctcgtg atcgttgccg gtgaccacgg caaggagtcc aaggacaggg 300
aggagcaagc ggagttcaag aagatgtaca gcctcatcga cgagtacaag ttgaaaggcc 360
atatccggtg gatctcggcg cagatgaacc gcgtncgcaa cggggagct 409

<210> 49

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B1

<400> 49

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atgagaatgg catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tcactcagtg taccatcgct catgccttgg agaaaaccaa ataccccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tc 392

<210> 50

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C4

<400> 50

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gcctgaggga gctggcgaac ctctgatcgc tcgccgtga ccacggcaag gagtccaagg 120
acagggagga gcatgcggag ttcaagaaga tgtacagcct catcgacgag tacaagttga 180
agggccatat ccggtggatc tcggcgacga tgaaccgcgt ccgcaacggg gagctgtacc 240
gctacatttg cgataccaag ggcgcattcg tgcagcctgc gttctacgaa gcgttcggcc 300

tgactgtgat cgagtcctatg acgtgcggtc tgccaacgat cgcgacctgc catggtggcc 360
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<210> 51
<211> 376
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A8

<400> 51

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tgaatgacag aatccaaagc cttcgtggtc tccaatcatc cctgagaaag gcagaggagt 120
atctactgag tgttctctcaa gacactccct actcggagtt caaccatagg ttccaagagc 180
ttggcttggga gaaggggttgg ggtgacactg cgaagcgtgt actcgacaca ctccacttgc 240
ttctcgacct tctggaggcc cctgatcctg ccaacttggga gaagttcctt ggaactatac 300
caatgatgtt caacgttggtt atcctgtctc ctcatggcta cttcgcccag tccaatgtgc 360
ttggataccc tgacac 376

<210> 52
<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B5

<400> 52

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atgagaatgg catcctccgc aagtggatct ctcgttttga tgtctggcca tacctggaga 180
catacactga ggatgtttcc agtgaaataa tgaaagaaat gcaggccaag cctgacctta 240
tcattggcaa ctacagcgat ggcaacctag tcgccactct gctcgcgcac aagttgggag 300
tactcagtg taccatcgct catgccttgg agaaaaccaa ataccccaac tcggacatat 360
acttgacaa attcgacagc cagtaccact tctcttgcca gttcacagct ga 412

<210> 53

<211> 424
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-C7

 <400> 53

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 cagtgtacca tcgctcatgc cttggagaaa accaaatacc ccaactcgga catctacttg 120
 gacaagttcg acagccagta ccacttctct tgccagttca cagctgacct tattgccatg 180
 aaccacactg atttcatcat caccagcaca ttccaagaaa tcgcggaag caaggacacc 240
 gtggggcagt acgagtccca catcggttc actcttctcg ggctctaccg tgtcgtccat 300
 ggcatcgatg ttttcgatcc caagttcaac attgtctccc ctggagcaga catgagtgtt 360
 tactaccgtg atacggaaac cgacaagaga ctactgcct ttcactctga aatcgaggag 420
 ctca 424

<210> 54
 <211> 447
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-049-Q1-K1-E5

 <400> 54

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 tccgttctcc tcatggctac ttcgctcagt ccaatgtgct tggataccct gacactggcg 120
 gtcaggttgt gtacattctg gatcaagtcc gtgctttgga gaatgagatg cttctgagga 180
 ttaagcagca aggccttgat atcactccga agatcctcat tgttaccagg ctgttgacct 240
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 acatcattcg cgttccgttc agaaatgaga atggcatcct ccgcaagtgg atctctcggt 360
 ntgatgtctg gccatacctg gagacataca ctgaggatgt ttccagtga ataatgaaag 420
 aatgcaggc caagcctgac cttatca 447

<210> 55
 <211> 278

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-021-Q1-K1-G6
 <400> 55
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 cggctctgcc aacgatcgca cctgccatgg tggccctgct gagatcatcg tggacggggg 120
 atctggcctg cacattgacc cttaccacag cgacaaggcc gcggatatcc tggtaactt 180
 ctttgacaaa tgcaaggcag atccgagcta ctgggacaag atctcacagg gcggcctgca 240
 gagaatctat gagaagtaca cctggaagct ctactccg 278

<210> 56
 <211> 408
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-039-Q1-K1-D2
 <400> 56
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 cagatgaacc gcgtccgcaa cggggagctg taccgctaca tttgcgatac gaagggcgca 120
 ttctgtgcagc ctgcgttcta cgaagcgttc ggcttgactg tgatcgagtc catgacgtgc 180
 ggtctgccaa cgatcgcgac ctgccatggt ggccctgctg agatcatcgt ggacggggta 240
 tctggcctgc acattgaccc ttaccacagc gacaaggccg cggatatcct ggtcaacttc 300
 tttgacaaat gcaaggcaga tccgagctac tgggacaaga tctcacaggg cggcctgcag 360
 agaatctatg agaagtacac ctggaagctc tactccgaga ggctgatg 408

<210> 57
 <211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-G8
 <400> 57
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 ccaagaaatc gcgggaagca aggacaccgt ggggcagtac gagtcccaca tcgcgttcac 120

tcttcctggg ctctaccgtg tcgtccatgg catcgatggt ttcgatccca agttcaacat 180
 tgtctcccct ggagcagaca tgagtgttta ctaccctgat acggaaaccg acaagagact 240
 cactgccttc catcctgaaa tcgaggagct catctacagc gacgtcgaga actccgagca 300
 caagtctgtg ctgaaggaca agaagaagcc gatcatcttc tcgatggcgc gtctcgaccg 360
 cgtgaagaac atgacaggcc tggtcgagat gtacgggaag aacgcgcgcc tgaggagct 420
 ggcgaaacctc gtga 434

<210> 58
 <211> 285
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-B10

<400> 58
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 gagagcgctg tcagcgagcc cagcagatac gagagagagg atggcggaca tcgcgttgct 120
 ggtggcggag cagttcgaga agacggcaag gcgaggcgcc cccggcgggg acagcggtag 180
 cgacagcggg accggcgggc agacaggaa cttcggggcc gtggccaagg tgtggagctc 240
 ttgggtggag tccgccttcg ccgcgcgctc cggggtcaga ttcac 285

<210> 59
 <211> 415
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-035-Q1-K1-A12

<400> 59
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 aagagcagag tgagatcgct gtcagcgagc ccagcagata cgagagagag gatggcggac 120
 atcgcgttgc tgggtggcga gcagttcgag aagacggcaa ggcgaggcgc ccccgcgggg 180
 gacagcggta gcgacagcgg gaccggcggc gagacagga acttcggggc cgtggccaag 240
 gtgtggagct cttgggtgga gtccgcctcc gccgccgct cgggggtcag attcaccgtc 300

gcggtgcagc tggagcccaa gaccgggctc gcgctggccg ncgncgacgg cctcttctcc 360
gcctagcgtc ctgcttccat gtcttctctc tgagcagtgc cagtggtcga gcgag 415

<210> 60
<211> 334
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-037-Q1-K1-G8

<400> 60

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cttcaattat tcttagcggt tgcttctccc ttccttgacc tttgcttgga accatcgata 180
gttacttatt gggcatggag cacgtcatct caatgcagga gatcctcggg ccttctctggg 240
agctgctgcc agcgccagcg ccagatccag agccggagca gcctccggta accggcatcg 300
tcgtcggcag tgtcatagac gttgctgctg ctgg 334

<210> 61
<211> 398
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-045-Q1-K1-H8

<400> 61

caacaacaac aaccgcagca ccaccaccaa caacaacaac aacagcacca acaacagcat 60
caatgtgaag gccacaaca acatcaccaa caatcacaag gccatgtgca acaacacgaa 120
cagagccatg agcaacacca aggacagagc catgagcaac aacatcaaca acaattccag 180
ggtcatgaca agcagcaaca accacaacag cctcagcaat atcagcaggg ccaggaaaaa 240
tcacaacagc aacaatgtca ttgccaggag cagcaacaga ctacaagggtg cagctataac 300
tactatagca gtagctcaaa tctaaaaaat tgtcatgaat tctaaggca gcagtgcagc 360
cctttggtaa tgccttttct ncaatcacgt ttgataca 398

<210> 62

<211> 417
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-F6
 <400> 62

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 cttttgtacg gaccaccagg aactggcaag acactcatgg ctctgtcatg tgctgcacag 120
 acgaatgcaa cgtttcttaa attagctggt ccacaacttg tgcagatggt tattggtgat 180
 ggagcaaagc ttgtccggga tgcattccag cttgccaaag agaaagctcc ttgtattata 240
 tttattgatg agatagatgc cattggcacc aaacgttttg atagtgaagt tagcggtgat 300
 agagaagttc agcggacaat gttggaatta ttgaatcaac tggatggatt cagcagcgat 360
 gagagaataa ggtcatagct gcaactaacc gtgctgacat ccttgaccct gctctga 417

<210> 63
 <211> 438
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-021-Q1-K1-D2
 <400> 63

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 aacaacgttt acatgcagat acaagacaac aatatcattg ttctctgaac acacatgacc 120
 tccattgtga cccagcctgt gatgtcttct cgtggtcatt ctcaagctgg ctgaagttcc 180
 ccttctcctt gatcagctgg atgtgggtgt gcttgcagta cagcttcccc tctgtgcgcaa 240
 tgtagttaga agggctgatg gtgcaccctc catggcagca cttgaagcag ctcttgtggt 300
 acatagtgtt gttaacagtg acctggatgc ttaaccggtt gtcaagtga gaaggctcaa 360
 actaccggaa gaatgattga gatggttgaa cacagaatct taccctctca gttggataga 420
 ctgtcttgct gcatccaa 438

<210> 64
 <211> 412
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B7

<400> 64

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cacaacaaaa ggggtgtcctt ctttatggac cttcgggcac aggaaagaca ttgttggcac 180
gtgcggttgc tcatcacact gactgcacct tcatcagggt gtctggttct gagttggttc 240
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atgcaccatc cattatatat atggatgaaa ttgactgtat cggatctgct agaatggagt 360
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<210> 65

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A8

<400> 65

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aagagtagca gccggccgga gccgaaaacg acgaggcggg ggcattggga ggccgccgtg 120
ctgcgacaag gtgggagtgga agaaagggcc gtggaccccc gaggaggacc tcatgctcgt 180
ctcctatgtc caggagcacg gccccgggaa ctggcgcgcc gtgccgacca acaccgggct 240
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gcgcggcaac ttaccgacc aggaggagaa gtcacatc cacttcagg ctctccttgg 360
caaccggtgg gcggcgatag cgtcctactt tgccgagagg acggacaacg atatcaagaa 420
ctactggaac acgcacc 437

<210> 66

<211> 396

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-G7

<400> 66

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 gctggcggca gtgcctaaac tcgcagggtc gcttcgttgc ggcaagagct gccgtctgcg 180
 gtggactaac tatcttcgcc ctgacctcaa gcgtggcctc ctcagcactg ccgaggagca 240
 gcttgtcatt gacctccatg ccaagctcgg aatagatgg tcccagattg ctgccaagtt 300
 gcctngaga acagacaacg agatcaagaa ccaactggaac acgcacatca agaagaagct 360
 tgtcaagatg ggtgtcgacc cggccacaca cgagcc 396

<210> 67
 <211> 365
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-005-Q1-K1-G1
 <400> 67

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 ggtgctgtgc gcaccggggg gaagggtagc gtgcgcagga agaagaaggc agtcacaaag 180
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 attcctggta ttgaagaggt caacatcttt aaggatgatg ttgttattca gtttgtaaatt 300
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 aagaa 365

<210> 68
 <211> 399
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-001-Q1-K2-F2
 <400> 68

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 ggagggggagc aagcctgcta gcacccaat gctttacagc tgtgctcttt gtggaaagga 120

gtacagaagc tcgaaagctc acgagcagca tcttaactcg cgatcacatc ttttgaaagc 180
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agtctcacga agagctccat ctgcagtaga ggaggatcaa gacgacgatg aggaagaaga 300
gtgggttgaa gttgacccaa gtgagatgga gttggctgat gagtctactt caaacatgca 360
ngaagatgag cactcctcaa aatcagatga tgacatgga 399

<210> 69
<211> 442
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-022-Q1-K1-A3
<400> 69

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ctcgtccaat cccccaactc cttcttcacg gatgtcaagt gccagggatg cttcagcata 180
accacggttt tcagccactc ccagactgtt gttgtgtgcc caggctgcca aactgttctc 240
tgccagccca cgggaggaaa ggcgaggctc acggagggat gctctttccg ccggaaggga 300
gactagagtg gagtctgtta ttagtactgg atcggttgtc aatctccagt atgtggattc 360
aaattttgct ctgtgcccag acgttaaggt catgaactac cttagctaag gctntccgca 420
tgtntgtctg gtgctgctat gt 442

<210> 70
<211> 455
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-048-Q1-K1-C1
<400> 70

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tcaagcacia gaaaaagaga ctcgtccagt cgcccaactc cttcttcacg gatgttaagt 180

gccaggggtg cttcagcata accactgttt tcagccactc ccagactggt gttgtgtgcc 240
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 gctctttccg caggaaggga gactagagcg gatgtggtct tcaagttttg ctctatgcc 360
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 atgtgttgca tgttggctac ttncaaactt atatc 455

<210> 71
 <211> 323
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-013-Q1-K1-F7
 <400> 71

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 aacaggctcag tgcttcatgt agctctgagg gctccaagag atgcagtcac aaacagtgat 120
 ggggtgaatg tgggtccctga ggttcggagt gttaaagata aaatcaagca gttttcagag 180
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 ccagaagcag cagaatgtgc aaa 323

<210> 72
 <211> 355
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-C9
 <400> 72

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 gagtcatca agaattctga ctacattggc acccctgaca agggatatct tgctgctgat 120
 gagtccactg gcaccattgg caagcgctt tccagcatca atgtctagaa cgttgacgag 180
 aaccgccgtg ccttccgtga gctcctattc tgctgccttg gtgctctcca gtacatcagc 240
 ggtgtgatcc tcttcgagga gaccctgtac cagaagacca aggatggcta gccttctgtc 300
 gatgtcctga acgagggagg cgttctccat agcatcaagg ttgacaaggg cacca 355

<210> 73
 <211> 454
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-G9

 <400> 73

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 tcgtggagat aacagggagg gtgtggaggc acgtaacgag gtggctgcat tagcaatgga 180
 agatatgcta tcttggatgc aggaggggtg tcaggttggg attttcgatg ccacaaacag 240
 cacaagaata cggaggaaca tgctgatgaa aatggctgaa ggaaaatgta agatcatctt 300
 tttggaaaca ttatgtaatg accaagatgt tcttgagaga aatatacgat tgaaagttca 360
 acaaagtcct gattatgcag agcaaacaga ttttgaagct ggtgtacaag atttcaaaga 420
 gcgattgacc tattatgaaa aggtctatga accg 454

<210> 74
 <211> 423
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-027-Q1-K1-A8

 <400> 74

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 gcaactggaa atgcaatgga accacagatc aggtcgagaa gattgtcaaa accctgaatg 120
 aaggacaggt tcccccttca gatgttgctg aggtcggtgt cagccctcct tatgtcttcc 180
 ttctgtggt caagagccag ctgcgccaag agttccatgt tgctgctcag aactgctggg 240
 tgaagaaggg aggtgctttc actggtgaag tcagtgtgta gatgctcgtc aaccttggtg 300
 ttccctgggt cattcttgga cactctgaaa ggagagctct gctaggagaa tcanatgaat 360
 ctgttgagaa caaggttgctg tatgccctgt cttaaggact aaaggtcatt gcatgttgtg 420
 gtg 423

<210> 75
 <211> 338
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-006-Q1-K1-B7

 <400> 75

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 caccgggccc agatggggcc caagttcttc gttggtggca actggaaatg caatggaacc 120
 gcagatcagg ttgagaagat tgtcaaaacc ctgaatgaag gaaatgttcc ctcttcagat 180
 gttgttgagg tcgttgctcag tctccttat gtgttcctcc cgggtggtaa gagccagctg 240
 cgccaagagt tccaagttgc tgctcagaac tgctgggtga agaagggagg tgcattcact 300
 ggtgaaatta gtgctgaaat gctcgtcaac cttggcgt 338

<210> 76
 <211> 390
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-A12

 <400> 76

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 tgctcatcca tggcatgata tcgagatcgg tcttggtgct cctgctgtat tcaatgttgt 180
 tgttgagatc acaaagggaa gcaaagtcaa atacgagctt gacaagaaaa ctggactgat 240
 taaggttgat cgagtccttt actcatcagt tgtataacct cacaattatg gtttcattcc 300
 aaggactctt tgtgaagaca atgaccaat ggatgtgttg gtctgatgc aggagcctgt 360
 tgttcctggt tcgttcctga gagctagagc 390

<210> 77
 <211> 241
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-049-Q1-K1-H2

 <400> 77

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 ggttgcgat gccctgtctt agggactaaa ggtcattgca tgtgttggtg agacccttga 120
 gcagaaggag gctgggtcta ccatggatgt tgggtgctgca caaacgaaag caattgctga 180
 gaagatcaag gactggagca acgtagtttg tgcctatgaa ccatgttggg ctatcggaac 240
 t 241

<210> 78
 <211> 399
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C9

<400> 78

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 gaccacaatg atccacatat agatgagtgg agaggataag gctgctgctt ctgctgagca 180
 gccgaagagg gccctaagc tcaatgaaag gatcctctct tctctgtcca ggaggtccgt 240
 agctgctcat acgtggcatg atcttgagat cggtcctgat gctcctgctg ttttcaatgt 300
 tgatgttgag atcacaaggg gaagcaaagt taaatatgag ctgcacaaga aaactggact 360
 gattaagggt gatcgagtcc tgtactcatc agttgtata 399

<210> 79
 <211> 453
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A7

<400> 79

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 tggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 180
 caatacaagc catcacaacg caacagcaac aacagttcct accagcactg atccacctat 240
 ccatggtgaa cctgcccgc tacttgcaag agcagctgct tgcaccaaac ccacttgctc 300

tggcgaacgt agttgcaaac cagcaacaac aacagctaca acagtttctg ccaacgctca 360
 gtcaactagc catggtgaac cctgccgtct acgtacaaca tcatcaactg ctttcatcta 420
 gcccgtctgc tgtgggcaat gcacctacat acc 453

<210> 80
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-048-Q1-K1-A8
 <400> 80

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 cggttgctacc gcgactatta ttccacaatg ctcaacaaca tacctgtctg cggtgacagc 120
 cgcgagattt gaatacccaa ctatacaatc ctacaggcta caagaggcca tcgcagcaag 180
 catcttacgg tcgttagcat tgaccgtcca acaaccatat gccctattgc aacaaccatc 240
 cttaatgaat ctatatctcc aaagaatcgc agcacaaca ctacaacaac agttgcttcc 300
 aacaatcaat caagtagttg cagcgaacct tgctgcttac ctncagcaac aacaatttct 360
 tccattcaat caactagctg gngtgaacct tgctgcttac ttgcaggcac aacagctact 420
 accattca 428

<210> 81
 <211> 355
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-A9
 <400> 81

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 cttggtcttt ctgcaagtgc tgctacggcg accattttac cacaatgctc acaagctcct 120
 atagctaccc ttattcccc gtacctatca ccaacgggtg cttcagtatg tgaaaacca 180
 attcttaaac cctacaggat ccaacaggca atcgagctg gcattctacc tttatcacc 240
 ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca tttattggca 300

caaaacatca gggcacatca actacaacaa cttgggctag caaaccttgc tgcct 355

<210> 82

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-B1

<400> 82

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gtgcagaagg cgctctcaga caagcaaacc tcgtcagacc tgctgcctgt tgagatggct 120

gtgctgcaag atggagaatt cacctgggtc actgataagg cagcgggtgtc cttgctgcag 180

aacaagtaga gtcccatggg aaccttggct cgaagccatt ttagctcata aaataaaaga 240

tccagggggcc tgcgtgcata gctgcattcg tcctccagga ttctgtgtaa cggagactcg 300

atccttttat gtagtgtgtg ttgttcggag taatgttcaa aaactctatt ggcttccggc 360

ttttc 365

<210> 83

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-B10

<400> 83

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gtaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120

tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag 180

ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240

cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300

caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360

ccatggtgaa ccttgccgcc tacttgcaac agcagttgct tgcacatac ccacttgctc 420

tggc 424

<210> 84

<211> 364
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-048-Q1-K1-B11

 <400> 84

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 ctaccaagat attatccctc cttgcgcttc ttgcgctntt tgcgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgtcctca ggtccattat tacacagttc cttccaccag 180
 ttactttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
 cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
 caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctat 360
 ccat 364

<210> 85
 <211> 294
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-B12

 <400> 85

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 aacaattgct gccattcaac caacttgctt tgacaaaccc agcagcgttc taccaacaac 180
 ccatcattgg tgggtgccctc ttttagattt cttatgagtt atagttcaat aataaagttt 240
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<210> 86
 <211> 447
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-048-Q1-K1-B2

 <400> 86

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cgcgggcgac gagggcgacga acccgacctc ctctctcgcg cccgtccctg ccaccggtcg 120
ccgatattgg aaggagctcg gagggctggg gcgctgacct gagttttatg gagagaggat 180
gccagagctg cgaagcagta ctgcgaagc atgcctaagg tcgaagaagc ttgaagatct 240
gcagccagga gagccgcctg cgaaaccggt gtcacctgct ccgccgaggg caggaaagcg 300
tgctctaca cgtgctgcta ggggcagaaa ggggtgccact gggaaaggag tgccccccgc 360
acctaagact agaagaaagc gngtaatat tgtcgacttg gaagctgac cagcttgtga 420
agacctnct aaagctgtca agggacc 447

<210> 87
<211> 446
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-048-Q1-K1-B4
<400> 87

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cacaatgctc acttgctcct agtgccatta ttccacagtt cctcccacca gttacttcaa 180
tgggcttcca acacctagct gtgcaagcct acatgctaca acaagcgctt gcggcgagcg 240
tcttacaaca accaattgac caattgcaac aacaatcctt ggcacatcta accatacaaa 300
ccatcgcaac gcaacagcaa caacagttcc taccagcact gagccaacta gctgtgggtga 360
accctatcgc ctacttgcaa tagcagatgc ttgcatcaa cccacttgct ctggcgaatg 420
tagctacata ccaacaacaa caattg 446

<210> 88
<211> 356
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-048-Q1-K1-B5
<400> 88

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gagaattcac ctgggttact gataaggcag cgggtgtcctt gctgcacaac aagtagagtc 180
ccatggtaac cttgggtcga agccatttta gtcataaaaa tataagatcc aagggcctgc 240
gtgcatagct gcattcgtac tccaggattt cctgtaacgg aaactcgatc cttttatgta 300
gtgtgtgttg ttcggagtaa tgatcaaaaa ctctatcggc ttccggcttt tcaaaa 356

<210> 89

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-B7

<400> 89

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gatttcttga ggcgggtaat tagttgttac gattagctag ctccagctgt cgctgccttg 180
ctaggagcgg aattctttcg ttcttctctt agggctattc gcagttcgcg agggtttctt 240
gatatgggta cagataagct ttattttgtc agtttagttg agtagttagc ctgtgagcgc 300
cgaccagtat gtaatcgttg tcctcctgac tgatatccct ctgttcttgt tggaaggcgc 360
aggttcatat acgagtttaa tatacgttgg taggaaattt cgattacatc acatttaaatt 420
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<210> 90

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-B9

<400> 90

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ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctatag gatccaacag gcaatcgcag ctggcatctt 240

acctttatca cccttgttcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac aacagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaacaac aacaa 445

<210> 91
<211> 431
<212> DNA
<213> Zea mays
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<400> 91

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tgaaattcaa gagaaggcgg gctggcaaga cagactacag ggccaggata aggctgatta 180
accaagacaa aaacaagtac aacacaccca aatacagatt tggtgtgcga ttaccaaca 240
aggacatcac tgcacaaatc atatctgcta gtatagcggg tgatatgggt cttgcttctg 300
cctactctca tgagttgccg cgatatgggc ttgaagttgg tctgaccaac tatgcagctg 360
cctactgcac tggacttctg ttggctcgcc gtgtgctaaa gatccgtggg ttggataagg 420
agtatgacgg c 431

<210> 92
<211> 426
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-048-Q1-K1-C11
<400> 92

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atgcctacat ttgcccttcc tgttcacgat ggtggggtag gtcttgacta tcggatgcat 360
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gggtga 426

<210> 93
<211> 422
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-048-Q1-K1-A6
<400> 93

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ac 422

<210> 94
<211> 205
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-047-Q1-K1-H2
<400> 94

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cagatgccct gccctgtgac ggcgctgcag ggcttgcacg gacctggcgc cggcctgacg 180
acgatgatgt gcgccgggtgc gctgt 205

<210> 95
<211> 436
<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-H3
 <400> 95

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 gctttcatgc agccaagtgt acatgtataa ctgatctgct tattgacagc agcaacaact 240
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 gttgccgcac taccagaacg ctgggcctaa cgctggaatc ttattacaac tgcaacaatt 360
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 tgggtggtgcc ctcttt 436

<210> 96
 <211> 426
 <212> DNA
 <213> Zea mays
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 <400> 96

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 gcgacgactc actgatcact ccctggatct tgttccacta cctgggtgatt ggcctttacg 360
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<210> 97
 <211> 407
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-H5

<400> 97

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atagaccac acaatgcggc acccaagcga aagaaagcca gggtcatgat accaaagagt 360
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<210> 98

<211> 272

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-H6

<400> 98

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ttgcggcgcg cgtgctcgcc cgagatggca tacgccagat ctggtgtcgc tgtgaatgac 180
gagagcatgc tcaagttcgt cgagctgcac tcgaagaggc tgcaccgggt cctaactttc 240
aagattgacg acaagttcat ggtgatcggt gt 272

<210> 99

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-H7

<400> 99

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gctcccgagc tgccgctggt acgtgaccag ccggacctgc ggcatcgggc cgcgcctccc 240
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 gtgcacggcg ctgagcatcc tcattggacgg cgcgatcccg ccggggcccg acgcgcagct 360
 gga 363

<210> 100
 <211> 440
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-H8
 <400> 100

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 ttacctttgg tgcatttatt ggcaaaaaac atcagggcac aacaactaca acaacttggt 300
 ctagcaaac ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactagct 360
 gcattgaact ctgcttctta ttgcaacaa caacaactac cattcagcca ggtacctgct 420
 gcctaccccc agcaatttct 440

<210> 101
 <211> 407
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-H9
 <400> 101

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 gcttgggcat gtgaatactt gagcttgtag cgctaccgga tccagcagge aataacacgc 120
 ggcatcttat ctgtatcacc gtcgttactc caacaatcat cagccctatt acttcattga 180
 ccttaggtgc atttattggc acagcagatc tgggcccacc aacgacatca gcttgtgcta 240
 gaaaacgtcg ctgcctacta tcagcaacag aagccttttc aattctacca attagctgca 300

ttgaactatg cttactatgtt ggcacagcac caactatgat tcagccagct atatgctggc 360
tacccccatc aatgactgac attcaaccaa ctgtcatcat tgaactc 407

<210> 102
<211> 442
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A1

<400> 102

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acaaatgcgt tcattattcc acagtgtca cttgtctcta gtgccagtat tccacagttc 120
ctcccaccag ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa 180
ctagcgcttg cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg 240
gcacatctaa ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgccatca 300
ctgagccacc tagccgtggt gaaccctgtc acctacttgc aacagcagct gcttgcattc 360
aaccacattg ctctggcgaa cgtagctgca taccagcaac aacaacagct gcaacagttt 420
atgccagtgc tcagtcaact ag 442

<210> 103
<211> 362
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A10

<400> 103

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gattgcttta gtgtcaagtg tgccacggac acaaacaggc cactgtgctc acaagctact 120
acagattcat gagctccaac atacttcaca acaacagcgt ccacagtatc tgcaacctca 180
attattaaca catcatggat agcagctgca acacgcaact ggcacagtat ctatagcacc 240
actgatactt caacaataac cagaagtaca tgtgcaacta cctctgcgac atccattgca 300
ccacaaccat caacgctcac cacctacaac acctcgctct agctgtgctt gctgactact 360
ct 362

<210> 104
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A11

<400> 104

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 ccttgctctt tcagcaagcg ctgctacctc gacttttatt ccacaatgct cacaacaata 120
 cctctctccg gtgacagccg cgggatttca atacccaact atacaatcct acatggtaca 180
 agaggccatc caagcaagca tcttacggtc attagcatta accctccaac aaccatatgc 240
 tctattgcaa cagccatcct tagtgcacat gtatctccaa agaatcgcg cacaacaact 300
 acaacaacag ttgctaccaa caatcaatca agtagttgca gcgaaccttg ctgcttacct 360
 ccagcaacaa cagtttcttc cattcaatca actagctggg gtgaaccttg ctatctactt 420
 gc 422

<210> 105
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A12

<400> 105

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 atttttgccc tccttgccct ccttgctctt tcagcaagcg ctgctacctc gacttttatt 120
 ccacaatgct cacaacaata cctctctccg gtgacagccg cgggatttca atacccaact 180
 atacaatcct acatggtaca agaggccatc caagcaagca tcttacggtc attagcatta 240
 accctccaac aaccatatgc tctattgcaa cagccatcct tagtgcacat gtatctccaa 300
 agaatcgcg cacaatcaact acaacaacag ttgctaccaa caatcaatca agtagttgca 360
 gcgaaccttg ctgcttacct ccagcaacaa cagtttcttc cattcaatca actagctggg 420
 gt 422

<210> 106

<211> 456
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A3

<400> 106

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 gctctggcga acgtagtgc aaaccagcaa caacaacagc tacaacagtt tctgccaacg 180
 ctcaagtcaac tagccatggt gaaccctgcc gcctacgtac aacaacaaca actgctttca 240
 tctagcccgc tcgctgtggg caatgcacct acatacctgc aacaacaatt gttgcaacag 300
 attgtaccag ctctgactca actagctgtg gcaaaccctg ttgcctactt gcaacagctg 360
 cttccattca accaactgac tctgtcgaac tctgctgcgt acctacaaca gcgacaacag 420
 ttacttaatc cattggtagt ggctaacc caa ttggtc 456

<210> 107
 <211> 452
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-A5

<400> 107

cactcgtcgg gccgggcgct ccacttcgcg ttctcgctc atctcctccc gctcaggatc 60
 cggcggcgaa ggtaaggcaa gatgtacacc gcgaggaaga agatccagaa ggataagggc 120
 cttgagccct ccgagttcga ggactccgtc gccagggctt tcttcgacct ggagaacggg 180
 aaccaggagc tcaagagcga cctcaaggac ctttacatca acgggtgctat ccagctggat 240
 gttgccggga gcaggaaggc tgttgatgac cacgtcccat accgcttgcg taaggccttc 300
 aggaagatcc atgtcaggat cgtcaggag ctggagaaga aattcagcgg caaggatgtg 360
 gtaattgttg ccacaaggag gatcgtgagg ccgccaaga aggggttcagc tgttcagcgc 420
 cctcgcacca ggactctgac tgctgtccat ga 452

<210> 108
 <211> 447
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-H12

<400> 108

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gggtccgaga cgggcgcgcg cgagccgatg gccctgaccg gcgacctcgg gtactaggcc 120
aactgccggg aggtggtgga gcggtggcg tcagcgtacg gcgggcgcgc cgacgtggag 180
gtgaacaacg ctggggatca gtacgagcgg gagagcatcg gggacgtgac tgaggcggac 240
ctacagcgcg tgttccgcac caacatcttc tctacttac tgggtgtacaa gcacgcggtg 300
ccgcgcgatg agccaggcgc ctgcatcatc aacaccatat tcgtcaacgc gtacaagggc 360
aacatgacgc tgatggacta cacggtcacc aatggcgcca tcgaggcctt cacgcgcgcg 420
ctctcgtctg agctggccga caggggc 447

<210> 109

<211> 477

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F8

<400> 109

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tagccctgcg tgcgcttggt gccctttctg tgagcgcaac atatgcgtgc attattccac 120
aatgctcact tgctcgtagt gccattatac cacagttcct ccgaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagcctaca ggctacaaca agcgcttgcg gcgagcgtct 240
tacaacatcc aattaaccaa ttgcaacaac aatccttggc acatctaacc atacaaacca 300
tcgcaacaca acagcaacaa cagttcctac cagcactgag ccaactagat gtcgtgaacc 360
ctgtcgcta cttgcaacag caggtgcttg catgcaaccc acttgctctg gcaaacgtag 420
ctgcatacca acaacaacaa caattgcaac agtatctgcc agcgctcagt caactag 477

<210> 110

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F9

<400> 110

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tccttatgct ccttggtctt ttgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttctttccc cgtacctctc accagcggtg ttttcggcat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagctt ggcattctac 240
ctttatcacc cttgcttctg caacaatcat cagccctatt acaacacgta cttttggtgc 300
atttattggc acaaaacatc atggcacaac aactaccaca ac 342

<210> 111

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-G1

<400> 111

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tagagcttgc tgaagagctg tctatgcctc ttgctgctgt gaagtactcc cgcgggacgt 120
tcattcttcc tggcgacag ccagccccc accggagctt ctccgaggaa gttgctgtac 180
ttaaccgata ctttgggggc ctgaagtctg gtggcaatgc ttatgtgatt ggagatgcag 240
caagaccagg acagaagtgg cacatctact acgccactga gtaccagag caaccaatgg 300
tcaaccttga gatgtgcatg actggtctgg acacgaagaa agcttcagtc ttcttcaaga 360
ctaattgctga tggcaacaca acatgtg 387

<210> 112

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-G10

<400> 112

gaagatcctc gtgatgctga ggaggcaatt gctggacggg atggatacaa ctttcatgga 60
caccttctaa gaggggaggc tgctcatggt ggtagaggta atgcttactc gcatgatcgt 120

tcaagtggct ctggtggcgg tggaggagca cgtcgtggtg tgtcgagaca ctcagagtat 180
 cgtgttcttg tcaactggact gccttcttat gcatcatggc aggatttaaa ggatcatatg 240
 cggaaggctg gtgatgttcg tttctctgaa gtgtatcgcg aaggcggcgg caccgtagga 300
 attgtggact acacaaatta tgatgatatg aaatatgcta taaagaagct ggatgatact 360
 gaattcacga acgcctttgg gcgaaccta 389

<210> 113

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-G11

<400> 113

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 ccttatgctc cttgggtctt ctgcaagtgt tgctaccgca accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtgt cttcaatgtg 180
 tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcattctacc 240
 attatcacc ttgttcttc aacaaccgtc agccctatta cagcagttac ctttgggtcca 300
 tttgggtggc caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcatactct cagcaacatc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
 t 421

<210> 114

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-G2

<400> 114

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 tcgcaagctc ctatagcttc ctttcttccc ccgtacctct caccagcgggt gtcttcggta 180
 tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc tggcatctta 240

cctttatcac ccttggtcct ccaacaatca tcagccctat tacatcagtt acctttggtg 300
 catttattgg cacaaaacat cagggcacaa caactacaac aacttggtgct agcaaaccctt 360
 gctgctact ctgagcaaca gcagtttctt ccattcaacc aactagctgc attgaactct 420
 gcttcttatt tgcaacaaca acaacttcca t 451

<210> 115
 <211> 242
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-G3
 <400> 115

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 gctcatctgg gagtagctgt gccacacatt gagttgaagc atgtgattgc tgctacaatt 120
 ggtcttaagg gtcttggaag cctccttttt attttgagca gctctctcgg tgcttatctc 180
 ctgctgctgt accttgcttt gatcactcct atcatccatg acttctacaa ctacgatatg 240
 ga 242

<210> 116
 <211> 456
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-047-Q1-K1-G4
 <400> 116

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 aaccgcagac ctgcgcgcgc ccttccct cgcggcgtc gtctcgcac gctctccgat 120
 ccaagatgta taagctgggg agaggaaacc gcgacaaggt gcagcagttc atgaccatta 180
 ccggcgccag tgagaagggt gcccttcagg cactgaaagc tagtgattgg cacttggaag 240
 gagcttttga cttcttctat agccaacctc aggtttctgt ggtcaatact cggcattctg 300
 aagatatttt caacagatat aaagaacctg atgctgatat gataatggtg gaaggaatat 360
 ctcaattttg caatgatctg cagggtgatc ctgaggatat tgtcatgctt gtcatatcat 420
 ggcacatgaa agccgccaca atgtgtgaat ntactc 456

<210> 117
 <211> 358
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-G5

<400> 117

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 tgcgggtgcc agccaccgcc gccggttcat ctaccgccgc cgggtgcatct gccacctccg 180
 gttcacctgc cacctccggt gcattctcca ccgccgggtcc acctgccgcc gccggtccac 240
 ctgccaccgc cgggtccatgt gccgccgccg gttcatctgc cgccgccacc atgccactac 300
 cctactcaac cgccccggcc tcagcctcat cccagccac acccatgccc gtgccaac 358

<210> 118
 <211> 389
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-G6

<400> 118

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 gcccgcttct tctccgtcgc ttccggcaccg ggcggagcga aagggcaccg accggcggcc 180
 tccgacgttg aggtgggcgg cgtcaagatc gcgcgcgagg atgttgcgaa ggaggatgat 240
 ccgacaaaca acgtgcccga caatatcttt tcgaagatcg gcctgcagct gcacaggagg 300
 gataaccatc cccttgggat tttgaagaac acaatctatg attactttga caagaacttc 360
 actgggcagt ttgacaagtt tgatgacct 389

<210> 119
 <211> 101
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-G7

<400> 119

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<210> 120

<211> 459

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-047-Q1-K1-G8

<400> 120

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gcggtgtgtg ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 120
cgttctatct gccgccgcag cagcagccgc agccatggca atacccact caaccaccgc 180
agctaagccc gtgccagcag ttcggatcct gcggcgctgg cagcgctcggc agcccgttcc 240
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cgccacagtg ccaggcgctg cagcagcagt gctgccacca gatcaggcag gtggagccgc 360
tgcaccggta ccaggcgaca tacggtgtgg tcctgcagtc cttcctgcag cagcagccgc 420
agggcgagct cgggcgctg atggcggncc aagtagcgc 459

<210> 121

<211> 285

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-G9

<400> 121

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ctccttggtc tctgcgccag cgctgatacc gggaccattt tccccgctat gctcggaagc 120
tccaatactt tcctttatta ccccgctac ttaacaacca acgacttcgt gttgcgaaaa 180
cccaattctt aatccctcca ggaccatcg ggcaatttaa actggcatct taccttgatc 240
accctagctc atccaacaat cacaaccctt attgcacat ttacc 285

<210> 122
 <211> 424
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-047-Q1-K1-H1

 <400> 122

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 cttttattcc acaatgctca caacaatacc tctctccggt gacagccgcg ggatttcaat 180
 acccaactat acaatcctac atggtacaag aggccatcca agcaagcatc ttacgggtcat 240
 tagcattaac cctccaacaa ccatatgctc tattgcaaca gccatcctta gtgcatctgt 300
 atctccaaag aatcgcgga caacaactac aacaacagtt gctaccaaca atcaatcaag 360
 tagttgcagc gaaccttgct gcttacctnc agcaacaaca gtttcttcca ttcaatcaac 420
 taac 424

<210> 123
 <211> 400
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-047-Q1-K1-H10

 <400> 123

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 ctgagcaaac tccggtgcat ggtcaagagg aggtggcact cgtcgagccg catcgtctcc 120
 cgcgccccgt cgtcaccggc tcacgccgac gccgtcgccg ccacctccgg caacgcgcgc 180
 ggcgcgctgt tccacggcgc ggacgaggcg cccaagggcc tgcacgcggg gtacgtcggc 240
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 ctcgccacc gcgcccggcg cgccgggggt cccgcggtta ccgtcatcgt cggctgcgag 360
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<210> 124
 <211> 325

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-H11
 <400> 124

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 gtagcttaca accatcgacg gcgtcactat gatcatctac ggggagtact ttaggcatgc 180
 tgatcgcaag gctgtgctgg cggacaagtt gtaccacatt tgtgaccgga cgagcgcgat 240
 gctcggaact gtacgaaggc atgactgtac atgaggatgat aggactatat gacgcctaga 300
 tccgctgcta gctgctgctg atgat 325

<210> 125
 <211> 389
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-F7
 <400> 125

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 ctcttatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
 acccaattct tcaaccctac aggatccaac aggcaatcgc agctggcatc ttacctttat 240
 cacccttggt cctccaacaa tcatcagccc tattacaaca gttacctttg gtgcatttat 300
 tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
 actctcagca acagcagttt cttccattc 389

<210> 126
 <211> 354
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-B5
 <400> 126

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ccagaataca ttcaccaagc aatctacaac atggttcaat ccataatcca ggaggagcaa 120
caacaacaac catgtgagtt atgtggatct caacaagcta ctcaaagtgc ggtggcaatc 180
ttgacagcag cacaatacct accatcaatg tgcggcttgt accactcata ctacccaaat 240
aatccatgca gcagcaatga cattagtggg gtttgcaatt gaagaattgt gtctacctag 300
ccgttatact cctataacgg tgtaagcaa taaagtacca tacattatga tggt 354

<210> 127

<211> 457

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B6

<400> 127

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agccaaaata ttttgcttcc ttatgtctct tgggtcttct gcaagtgttg ctaccgcaac 120
cattttccca caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc 180
agcgggtgtct tcaatgtgtg aaaccccaat tggtcaaccc tacaggatcc aacaggcaat 240
cgcaacaggc atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca 300
gcagttacct ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact 360
tgtgctagca aaccttgctg catactctca gcaacatcag gttcttccat tcaaccaact 420
ggctgcattg aactctgctg cttatttgca acaacaa 457

<210> 128

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B7

<400> 128

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agaagaagag atggccggca agggcgatgg cccggctatc ggcacgac tcggcacgac 120
gtactcttgc gtcggcgtgt ggcagcacga ccgcgtcag atcattgcca acgaccaggg 180
taaccgcaat gagaaggtgc aggacctgct tctgctggac gtcacccctc tgccctggg 240

tctggagact gctggaggag ttatgacagt gctgatcccg aggaacacca ccatccccac 300
 caagaaggag caggtattct ccacctactc ggacaaccag cccggtgtcc tgatccaggt 360
 ctacgagggt gagaggaccc ggacacgcga caacaacctg ctgggcaagt tcgagctctg 420
 cggca 425

<210> 129
 <211> 405
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-B8
 <400> 129

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 ggaggcatga accaaaatgt tggctggagt gctcctgtgc agggaaatcc aggtcaggca 120
 aataacaaca tgaactggaa cgcaccaaatt ggtaatccta attggaataa tcaacagaga 180
 gagaatgggg gcaggcactc tggacaccgt ggtgctttta gtggtggtga ctcaagcgga 240
 aggtcatgga agtcacgctc ttgtggccat ggtgggtcaa ggggacataa ccaattctac 300
 cattcaacaa acacagatgg atatccattc aggactgac gccattacga taggcagaat 360
 ttaggcaact agaggcgata tgagaatcac aatgagagaa atggt 405

<210> 130
 <211> 436
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-B9
 <400> 130

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 cagccctggg acggcagtta cctttgggtc atttgggtggc aaaaaacatc agggcacaac 120
 aactacaaca acttgtgcta gcaaaccctg ctgcatactc tcagcaacat cagtttcttc 180
 cattcaacca actggctgca ttgaactctg ctgcttattt gcaacaacaa ttaccattca 240
 gccagctagt tgctgcctac cccagcaat ttcttcatt caaccaacta gcagcattga 300
 actctgctgc ttatttacag cagcaacaac tactaccatt cagccagcta gctgatgtga 360

gccctgctgc cttcttgaca caacaacagt tgttgccgtt ctacctgcac gctatgccta 420
acgctggcac cctctt 436

<210> 131
<211> 234
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C1

<400> 131

ctacttccac tccacaaact ctcaagataa gttttaaatt ctaacctacc ccatccacat 60
ctatatctta atccatattc actctctaac ccatttctcc ctaccttcac tcaccaacca 120
caaccatccc ccttacacaa cccatcctct cccatcaacc ctaccttaca acaaccacaa 180
cactctacpt cccatttact acatcaccaa ctacaaccac tctaccaatt aaca 234

<210> 132
<211> 398
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C10

<400> 132

ctccccgttc cccagtcccc acgccgaccg gctggtcctc ctcttttccc cgcgccatcc 60
tcgaggcatc gccggctccg catcttcgtt caggaggaag cccgcaccog gccccgatcc 120
gatggccaac agctacctcc cgcgtcgtat catcaaggat acgcagcgac tgctcatcga 180
gccagcgccg gggatcagcg cgtcgctctc ggaggagaac atgcgctact tctacgttat 240
gatccttggt cccggcgatt ctcctatga aggtggagtt attacgcttg aactcttttt 300
acctgaggaa tateccatgg ctgccccaac ggttacgtct ctgaccaaga tctatcatcc 360
ctacattgac aagctaggta cgatatgcct cgacattc 398

<210> 133
<211> 356
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C11

<400> 133

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caatcggttg ggcgcctca cacaccaccg ccgccggcta gaggctaggg ccgtaatcgt 120
aacagccacc cctgagactg agatggatac agcggaggag gctgggcagg aagtagtcag 180
cgctgttggg gaggatagta tcccggaagc tgccgcctgc agcaggagg agaggaagga 240
ggaagaggag gaagaagtgg aggtgagctt cgatgaactt ggctggacg agcagctgaa 300
gagggcgttg aggaagaagg gcatcctcaa ggccaccccg atacagcggg aagcca 356

<210> 134

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C12

<400> 134

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tggtgctggc gatccacatc cacagcaggt gcaggtgcag cagcagcagc aagcacagat 120
gaggattaac agggccacca gatcccttct tcctcagccg ccgtcgaaac tagactgccc 180
gtccacctgc tccgtgcgct gcggcaacaa ctggaagaac cagatgtgca acaagatgtg 240
caacgtctgc tgcaacaagt gcagctgcgt gccgtcgggg accggccagg acaccgtca 300
cctctgcccc tgctacgaca ccagctcaa tccacacacc ggcaagctta agtgccccta 360
ggccttcgcc actcatgtta tgtacaatgt actatcatca ctttaat 407

<210> 135

<211> 246

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-049-Q1-K1-C2

<400> 135

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atacaacatt agcattccca aatcaatata acacttataa antctacaat tcaacacaat 120

acccttaact cacacaaatt ttcataccaa tcatcattac tattccatac aacaacttac 180
ctttcattac ataaatcttt taaacaaact tccttataaa ctcatcata tcattccaaa 240
attcat 246

<210> 136
<211> 455
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-C3
<400> 136

ctagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat ttgcctcct 60
tatgctcgg ggtctttctg caagtgtgc tacggcgacc attttccgc aatgctcgca 120
agctctata gcttcccttc tcccccgta cctctacca gcggtgtctt cggtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
atcacccttg ttctccaac aatcatcagc cctattacaa cagttacctt tgggtgcattt 300
attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacagcagt ttcttcatt caaccaacta ggttcattga actctgcttc 420
ttatttgcaa caacaacaac taccattcag ccagc 455

<210> 137
<211> 351
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-C4
<400> 137

cccacgcgtc cggaccaact agcaacatag aaagcacaat agtgtaccaa caatggcagc 60
taaggatatgt tgctcctta tgctccttg tctttctgca agtgcctgcta cggcgaccat 120
tttcccacia tgctcacaag ctctatagc ttcccttctt ccccgctacc tctcaccaac 180
gggtgtcttcg gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc 240
agctggcatc ttacctttat cacccttggt cctccaacia tcatcagccc tattacagca 300
gttacctttg gtgcatttat tggcacaaaa catcagggca caacaactac a 351

<210> 138
 <211> 360
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C5

<400> 138

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 tcgggctctg ctgcgtacct acaacagcga caacagttac ttaatccatt ggcagtggct 120
 aaccattgg tcgctacctt cctgcagcag caacaacaat tgctgccata caaccagttc 180
 tctttgatga accctgcctt gcagcaaccc atcggtgaag gtgccatctt ttagattaca 240
 tatgagatgt actcgacaat ggtgccctta taccgacatg tgtttcctag aaataatcaa 300
 tatatcgatt gagatttatc tcgatataat acacacaccg ataaacttaa atgcccttaa 360

<210> 139
 <211> 453
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C6

<400> 139

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 catggaaaca cagacagcac tagcagttcc agatgaagat aacactttgg tagtctacag 120
 ttctgcacag taccctgaac ttgcacaaag tgcatagca aggtgcttag gtattccatt 180
 cagcaacgtg cgtgtcatta caagaagggt tggaggaggc ttctgtggaa aggcattcag 240
 atcattccaa gttgcaacgg cagctgcact ttgtgcgtac aagttacggc gtcctgttcg 300
 aatgtacctt aatcgcacca ccgatatggt catggttggt ggtaggcacc cagtgaagc 360
 taattatact gtcggattca agaacgatgg gaacgttacg gccttgcac tagatttatt 420
 gattaacgct gggatatctc cagatgcgag ccc 453

<210> 140
 <211> 453
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C7

<400> 140

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caagatatta tccctctttg cgcttcttgc cctttttgtg agcgcaacaa atgcgttcat 120
tattccacaa tgctcacttg ctccctagtgc cattattcca cagttcctac ctccagttac 180
ttcaatgggc ttcgaaacacc cagctgtgca agcctacagg ctacaacaag cgcttgccggc 240
gagcgtctta caacaaccaa ttgcccaatt acaacaacaa tccttggcac atctaaccat 300
acaaaccatc gcaacgcaac agcaacaaca atttctacca gcaatgagcc aactagctgt 360
ggtgaaccct gtcgcctact tgcaacagca gttgcttgca tccaaccac ttgctctggc 420
aaacatagtt gcataccaac aacaacaaca att 453

<210> 141

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-C9

<400> 141

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gcctggttat gtccttgggt ctttctgcaa gtgctgctac tgcgaccatt ttcccgcaat 120
gctcgcaagc tcttatagct tcccttcttc ccccgtaact ctaccagcg gcgtcttcgg 180
tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240
tacctttatc acccttggtta ctacaacaat catcagccct attacaacag ttacctttgg 300
tgcatattatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
ttgctgccta ctctcagcaa cagcagtttc 390

<210> 142

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B4

<400> 142

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 aatgcagtgt tgtggaagaa ggaaagttca ggtactacaa attttcagtt gaaggaaatg 120
 tgagtgagaa agtagcttct gggcatgcaa atatcgagat taaaatagat acggacgcga 180
 gcggtggtga cactgatatc tatgtttcaa gacatccttt agtatttcca actcagcacc 240
 gacatgagtg gtcttctcat gaaatgggat cgaaggttct tatactcaaa ccacgggatg 300
 ctacattggt cagtgggtgt tacagtattg gagtttatgg tttcaaaggg acttttaagt 360
 accagctctc tgtagctatc aaggatgtta gtggccaaag gattggtgaa tatgctagtg 420
 cctcgggaag tgttgatttt gattctgtgc tgtgt 455

<210> 143
 <211> 309
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-A10
 <400> 143

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 tacataatgc tggccacaac cgattattgt gggtcactgc ttacacatta ctgattacat 120
 attcacatat acttgagcac cctgtctgat gattataact atgccattat aagatagtag 180
 acttctagat agattgactt ccttaattgt cgctacatat aacatacaca ggatgtgcta 240
 cagctacatg caatgctgtc aaaattgtac gatctaagct agactatgat acttgccaaa 300
 attgataat 309

<210> 144
 <211> 402
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-A11
 <400> 144

agaaagtgga atccagtagc aacaatagag catcaatggc gaccaagata ctttccctcc 60
 ttatgctcct tgctctttct gcatgtgttg ctaacgcgac aattttccct caatgctcac 120
 aagctcctat agcttccctt cttcccccat acctccatc aatgatagct tcagtatgtg 180

aaaacccagc ttttcaaccc tataggctcc aacaagcaat cgcagcaagc aacatacctt 240
 tatcaccctt gtttcaacaa tcgccagccc tatcttttggc gcagtcattg gtacaaacca 300
 tcaaggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta gctctggcaa 360
 acctttctcc ctactatcag caacaacaat ttcttccatt ca 402

<210> 145

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A12

<400> 145

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 caagcgaagg tcgatcgctc gtctatagct agaccactac cacctccatg gtttcttgac 120
 tgatagatag acggacgaga atgaagaagc tagctagcta ctagatatat catcagtaga 180
 gtgttcagtt gttgatgatg gctctctctt tgcccctggc caccactggg ctgcgccatc 240
 ctctctctcc gcagcagtcg ccgaggggtg tcttgcagag cgaggaccg accgagtggc 300
 gcgcgtgggc gcaccaaggg caccgtctgt ggggtggccat gccggactcc ttctgggtgt 360
 acacgtacaa agtggaccgg tgcccgttcc ggggcaacca cgtgtggacg acgtgcccct 420
 acgcgcactg gggg 434

<210> 146

<211> 325

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A2

<400> 146

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 tctcttggtc ctctctgcga gcgccacctc caccgataca agcggcggct gcggctgcca 120
 gccaccgacg gcggatcatc taccgacgcc ggtgcatctg ccaccttcgg ttcacctgcc 180
 acctccggtg catctccac cgccgggtcca cctgccgacg ccggtccacc tgccagcgcc 240
 ggtccatgtg ccgccgcccg ttcatctgcc gccgccacca tgccactacc ctactaaacc 300

gccccggact aagcctaatac cccag

325

<210> 147

<211> 332

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A4

<400> 147

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ggggcgacgg acgaccactc cctccacaac gccttcagca cctacggcga ggtcctcgag 120
tccaagatca tcctcgatcg ggagacgcag aggtcccgcg gcttcggctt cgtcaccttc 180
tccacggagg aggcgatcgc gaacgccatc gagggcatga acggcaagga gctggacggc 240
cgcaacatca ccgtcaacga ggcccagtcg cgcgggcgcc gtggaggcgg ctgcggcgcc 300
gggtacggtg gtggccgtgg aggcggcgcc ta 332

<210> 148

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A5

<400> 148

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cgcgatacac gcccgcgccg tcttctcccg agcgtagtaa gccgcctgc gtcgagcgcc 120
ggccgagcgc ctgcctgcgt ctacgcctg cctgcggtgg acggatgagc tgtaccgcgc 180
atatgataga ctgtacgtgc agtaatggta tacggagagg agaccatgag agactggaga 240
ctacagagaa tgtggtggac tgctaggttt ttgtttattg gaaaaatcag aaccctaata 300
ggtacagaca caagacagtg taatatgggg actcgatcaa cttgggggttc gtaaaggat 359

<210> 149

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A6

<400> 149

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tccgggggtct ttctgcacgt gttgctaccg aaaccattat gccacaatgc tcacaagctc 120

ctataacttc ctttcttctt ccataccttt caccagcggg gtctacaatg tgtgaaaccc 180

caattgttca atcctacagc atccatcagg caatcacac aggcatttta ccattataaa 240

cttcgatcct gcaacaacag tgagtcctat tacagcaatg acctttgggc cattcgttgg 300

cacacagaat caggacacac caacttcagc acttgggtcat atcaaact 348

<210> 150

<211> 417

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-049-Q1-K1-A8

<400> 150

ggtcttcaga ccattagctt tatctactcc agagcgcaga agaaccgat cgacaccatg 60

aggggtgttg tcgttgccct cgctctcctg gctctcgctg cgagcgccac ctccacgcat 120

acaaggggcg gctgcggtcg ccagccaccg ccgcccgttc atctaccgcc gccgggtgcat 180

ctgccacctc cggttcacct gccacctccg gtgcattctc caccgcccgt ccacctgccg 240

ncgcccgttc acctgccacc gccgggtccat gtgccagccg ccgttcatct gccgcccga 300

ccatgccact acctactca aaccgcccgg cctcagcctc atccccagcc acacccatgc 360

ccgtgccaac agccgcatnc aagcccgtgc cagctgcagg gaacctgcgg cgttggc 417

<210> 151

<211> 306

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A9

<400> 151

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agatgatgtg gtgtgtataa gcaagatcac agccaccttg gcttggtcac ttggtaagct 120

tgattgggtc caaattcaca ttgacttggc caacctgtct gatgaagatt aggggtgcat 180

tagaaaatgg ggtactccca attagattga cttcctttct ctggcctaca caagacatgc 240
agaggatgtg cgccaggcac cggaattcct gtcaaaattg ggccatctaa gccagactct 300
gattttt 306

<210> 152
<211> 419
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-B1
<400> 152

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ttgcgcttct tgcccttttt gtgagtgcga caaatgcgtt cattattcca caatgctcac 120
ttgctccgag tgccattatt ccacagttcc tccctccagt tacttcaatg ggcttcgaac 180
aaccagctgt gcaagcctat aggctacaac aagcgcttgg ggcgagcgtc ttaaaacaac 240
caattgcccc attacaacaa caatccttag cacatctaac catacaaacc atcggaacgc 300
aacagcaaca agcactgagc cacctaaccg ggggtgaacc tatcggtac ttggaacaac 360
cgggtggttg attcaaccga attgctttgg caaacctaac ttgataccaa ccaccacca 419

<210> 153
<211> 328
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-B10
<400> 153

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gacggggatg tgcggcctgc agcagccgac tccatgcccc tacgctgctg ccggcggtgt 120
tccccactga agaaactatg tgctgtagta tatccgctgg ctagctagct agttgagcca 180
tctagcggcg atgatcgagt aataatgcgt cacgcatgac catgggtggc acatgtcagt 240
gtgagcaatg acctgaatga acaattgaaa tgaaatgaaa ccaactagca acaattgaac 300
tctgctgctt atttacagca gctacaac 328

<210> 154
 <211> 302
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B11

<400> 154

gcttattttac agcagcaaca actactacca ttcagccagc tagctggtgt gagccctgct 60
 accttcttga cacatccaca gttgttgccg ttctaccagc acgttgccgc taacgctggc 120
 accctcttac aactgcaaca attgctgcc a ttcaaccaac ttgctttgac aaaccagca 180
 gtgttctacc aacaacccat cattggtggt gccctctttt agatttctta tgagttatag 240
 ttcaataata aagtttttta tctgatgttt gtggcttccc agaaataaga aagtacattt 300
 ct 302

<210> 155
 <211> 313
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B12

<400> 155

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 aatatcgtgt cagactgtca caccctgac ctctctccta tcgcaataaa tgtgttcatt 120
 atacaacaaa tccctctaaa aacaactgcy attataactc acggaagatg acgatacaat 180
 tgatgcagcc taggatacac attctttcat cgctacgacg aaccataagg tagcgatgcc 240
 cgatgccata tctctacgt aggcataatg aactaacaat cttcacccgat agtaaacctt 300
 ctaatactac atc 313

<210> 156
 <211> 419
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B2

<400> 156

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ttgCGGGTat ggccacaaag gaaataatct gattctaggc gactggaccg gttgctctgc 120
 ttgaaacccg gtctgggtta agctgtgaag ctctgcagc cgcttgctcc tgcagttatg 180
 cgtcaagtgt ctaccaactc tagcatatgt agtgctgcgt aagatgtcgg cacctcagat 240
 agacagaggc gccatatatc ttgctcatgt aaagttatat cgtgtatgct cgtagtatg 300
 tactgcatga agcattgtaa aattgagcaa cagcaaccag agctcgagaa tcttaagcgc 360
 aaccaaccaa ccccgatatcg atgaattgac aataaagctg aatatttttag gtgttttaa 419

<210> 157

<211> 162

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-B3

<400> 157

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 cgggggatgg gaaactcgcc gagaatactg gaccttaggc tactagacct cctgttctct 120
 ttcaaacgcc cggccgacta acacaactac ttcttgacgc ca 162

<210> 158

<211> 456

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-A1

<400> 158

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 caagatatta gccctccttg cgcttcttgc ccttttagtg agcgcaacaa atgcgttcac 120
 tattccacag tgctcacttg ctcttagtgc cattattcca cagttcctcc caccagttac 180
 ttcaatgggc ttcgaacatc cagccgtgca agcctacagg ctacaactag cgcttgccggc 240
 gagcgcccta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct 300
 acaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgagccacct 360
 agccgtgggtg aaccctgtca cctacttgca acagcagctg cttgcatcca acccacttgc 420
 tctggcgaac gtagctgcat accagcaaca acaaca 456

<210> 159
 <211> 432
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-G5

<400> 159
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 cgttctatct gccgccgag cagcagccgc agccatggca atacccact caaccaccgc 180
 agctaagccc gtgccagcag ttcggatcct gggcgctcgg cagcgtcggc agcccgttcc 240
 tggggcagtg cgtcgagttc ctgaggcacc agtgcagccc ggcggcgact ccctacggct 300
 cgccacagtg ccaggcgtg cagcagcagt gctgccacca gatcaggcag gtggagccgc 360
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 aaggcgagct cg 432

<210> 160
 <211> 402
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-G6

<400> 160
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 cttgctctcc tggcgctagc tgcgagcgcc gtctacagta caagcggcag ctgtggctgc 120
 cagacaccac cgtttcatct accgactccg ttctatatgc cgactccgct ctatctgccg 180
 acgtaacagc agccgcagcc atggcaatac cccactcaac caccgcagct aagcccgtgc 240
 cagcagttcg gatcctgcgg cgtcggcagc gtcggcagcc cgttctctggg ccagtgcgtt 300
 gagttcctga ggcaccagtg cagcccggcg gctacgccct aaggatogac acagtgccag 360
 gcgctgcata agcagtgtg tcaccagatc aagcacgtgg ag 402

<210> 161
 <211> 284

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G7

<400> 161

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 gatatcaggc tcgaggatct acaccatcaa atttcgactg cgactatgct tatgctcttg 120
 gacgtatctc cctgcatatg attacagttg gattgactgg ctacatggca actgcggtta 180
 atctgaaaga ccctgttgag aaatggagat gtgctgctgc tcctttaact gcgatgatga 240
 gtgtgaagag gcatttacgt ggccctggag caatccctat aggg 284

<210> 162
 <211> 408
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G8

<400> 162

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 cctctgoggc cggtcggttc tcctcccgca agcccaacaa gcgcttcgag atcaagaagt 180
 ggaacgccga cgcgctctgg gcatgggata tcgtcgtcga caactgcgct atctgccgca 240
 accacatcat ggatctatgc atcgagtgcc aggcgaacca tgccagcgcg accagcgagg 300
 agtgcaactga tgcttgggga gtctgtaatc atgcttttca cttgcaactgc atcagcaggt 360
 ggcttaagac tcgtcaagtg tgcccattag ataacagtga gtgggagt 408

<210> 163
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G9

<400> 163

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accttctctg cgcctctgga agatccgaaa ccgtactatg acccactgaa cgaccaagtc 180
tactgctacg ttagcccggt cttctctcgt cataactggc agcttccggt gcacagttta 240
cctatcaaag acggtgcgag ccggctgcag gtgtttgcat gcgcgttgct taaaggggac 300
gtcctgccat gtctacggga cgccaaggat ttctctgcgc tgtcaccatc cgctgtgttg 360
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ttagtc 426

<210> 164

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H1

<400> 164

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gcggtgtgtg ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 180
cgttctatct gccgccgcag cagcagccgc agccatggca ataccctact caaccaccgc 240
agctaagccc gtgccagcag ttcggatcct gcggcgtcgg cagcgtcggc agcccgttcc 300
tgggccagtg cgtcgagttc ctgaagcacc agtgcagccc ggccggcgacg ccctacggct 360
cgccacagtg ccaggcgctg cagcagcagt gctgccacca gatcaggcag gtggagccgc 420
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<210> 165

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H10

<400> 165

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gggtccgaga cgggcgcgcg cgagccgatg gccctgaccg gcgacctcgg gtactaggcc 120
aactgccggg aggtgggtgga gcgggtggcg tcagcgtacg gcgggcgcac cgacgtggag 180

gtgaacaacg ctggggatca gtacgagcgg gagagcatcg gggacgtgac tgaggcggac 240
ctacagcgcg tgttccgcac caacatcttc tectacttac tgggtgtacaa gcacgcggtg 300
ccgcgcgatg agccaggcgc ctgcatcatc aacaccatat tcgtcaacgc gtacaagggc 360
aacatgacgc tgatggacta cacggtcacc aatggcgcca tcgaggcctt cacgcgcgcg 420
ctctcgctgc agctggccga caggggc 447

<210> 166

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H11

<400> 166

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aatgcgtcac aagctgctat cgcttacgtt gttgccgcat actttggata cattataggt 180
tcagtatgtg aaaaccaga tcttgaacca tatgggctgc aaccagcaat cgtaggaagc 240
aacatacctt tatcgctctt gttgcatgaa caatcaccag acctatcttt gctgaagcta 300
ttggtccaaa ccatcagggc acaacatctg caggaacccg tgctacctgg gatcaaccaa 360
gtacttttgg a 371

<210> 167

<211> 280

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H12

<400> 167

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atgaaaagaa taaagaacat aataaataaa aataaaaaaa tagataaaac aaataaaata 120
acataaaaga taaaaaaact gactaaagct tacgtagtta ctaaatacct ataataaaat 180
tatagattca atatataaaa aaggcggacc attaaacata tatcaattat acgtgcgttc 240
gcatgcaact tcatacgtct ataattgggt aagcaaaatc 280

<210> 168
 <211> 443
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-H2

 <400> 168

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 gctccttggt ctttctgcaa gtgctgctac cgcgaccatt ttcccacaat gtcacaagc 120
 tcctatagct tcccttcttc ccccgtaacct ctcaccaacg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtt cttcaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgcaacaa caacaactac cat 443

<210> 169
 <211> 440
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-H3

 <400> 169

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 gcaagatatt ttccctcctt atgctccttg ctctttctac atgtgttgct aacgcgacaa 120
 ttttccctca atgctcacia gctcctatag cttcccttct tccccatac cttccatcaa 180
 ttatagcttc agtatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg 240
 cagcaagcaa cataccttta tcgcccttgt tgtttcaaca atcaccagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcaaggcac aacagctgca gcaactcgtg ctacctgtga 360
 tcaaccaagt agctctggca aacctttctc cctactctca gcatcaacaa tttcttccat 420
 tcaaccaact gtctacactg 440

<210> 170
 <211> 452
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-H4

 <400> 170

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 tagccgtcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
 aatgctcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
 gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgtct 240
 tacaacaacc aattgccc aa ttgcaacaac aatccttgcc acatctaaca atacaagcca 300
 tcacaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atggtgaacc 360
 ctgccgcta cttgcaagag cagctgcttg catacaaccc acttgctctg gcgaacgtag 420
 ttgcaaacca gcatcaacta cagctacaac ag 452

<210> 171
 <211> 331
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-H6

 <400> 171

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 caacaacggg aacatgagtt gctgatatta ctgagcgacc tagccgagca taaccctgtc 120
 atataacttga aacagtaagc tgcttgcata tgaccactt gctctggcaa acgtacctga 180
 ttactcgoga caacaacaac tgcaacatat tatggccaag atgagtcaac tagccatgg 240
 gaaccatgtc gtataactac cacttgctgc atttattcag ctatacgagg gcaatgcaac 300
 tacgcacgta cttcgacagt agctgcaaca a 331

<210> 172
 <211> 438
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-H7

<400> 172

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cagaaactga tttggatggt ctgtccagaa ccaagcctaa agaagcaaac gagcttattt 180
ctaagcagga atcgcaggat aagttggaaa aggctcctga tacctctgtg ccaactaatg 240
ggaatagctc ccaagaaaag cttattggca gccagatat actaccaaag aaattggcct 300
taaaattagc atttacttta ccaacatcat gctacgctac aatggctatc cgggagcttc 360
tgaagacttc cacctcagtt gcatacaga aaacactcag ctgctagatt ctgtttggaa 420
gacattcctt cataagag 438

<210> 173

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H8

<400> 173

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aacagattgt accagctctg actcaactag ttgcggcaaa cctgctgcc tacttgcaac 120
agctgcttgc attcaaccaa ctgactatgt cgaactctgc tgcgtacct caacagcgac 180
aacagttact taatccacta gcagtggcta acccattggg cgctgccttg ctacagcagc 240
aacaattgct gccatacaac cagatctctt tgataaacc tgtattgtcg aggcagcaac 300
ccatcgttgg aggtgccatc ttttagatta catatgagat gtactcgata atgggtgcct 360
cattccggca tgtgtttcct agaaataatc aatatattga ttgagattta tc 412

<210> 174

<211> 237

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-H9

<400> 174

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 cgctgcctgc attaaacagc ctgactatgc cgaactctac tacatgactg cagcagtgac 180
 agaatgtaac tgatgcagta gctacggcta acacattggc cgctgccgtt gtacata 237

<210> 175
 <211> 381
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-G4
 <400> 175

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 ttaacgcctt cttgcaacag caacagttgc taccattcta cccacaggat gtggcaaaca 180
 atgtgcctt cttacaacaa caacaattgc tgccatttaa ccaacttgct ttgacgaatc 240
 ctaccacctt attgcagcag cccaccattg gtggtgccat cttctagatt tttttatgct 300
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 agagatctat attttaagtt c 381

<210> 176
 <211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-F12
 <400> 176

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 ttccctcaat gtcacaagc tcctatagct tcccttcttc cccatacct tccatcaatt 180
 atagcttcaa tatgtgaaaa cccagctctt caaccatata ggcttcaaca agcaatcgca 240
 gcaagcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttggtg 300
 cagtcattgg taaaaccat cagggcacia cagctgcagc aactcgtgct acctctgac 360
 aaccaagtag ctctggcaaa cctttcttcc tactctcagc aacaacaatt tcttccatto 420

aaccaactgt ctaca

435

<210> 177

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F2

<400> 177

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tatcaccctt gttcctccaa caaccgtcag ccttattaca gcagttacct ttgggtccatt 180
tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca aaccttgctg 240
catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg aactctgctg 300
cttatttgca acaacaatta ccattcagcc agctagttgc tgcctacccc cagcaatttc 360
ttccattcaa ccaactagca gcattgaact ctgctgctta tttacagcag caacaactac 420
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<210> 178

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F3

<400> 178

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ttcgtgggtg agcggatcga gatggcggcg tcggatgttg agtaccgctg cttcgtcggc 120
ggcctcgctt gggccacgga cgaccactcc ctccacaacg ccttcagcac ctacggcgag 180
gtcctcgagt ccaagatcat cctcgatcgt gagacgcaga ggtcccgcgg cttcggcttc 240
gtcaccttct ccacggagga ggcgatgcgg aacgccatcg agggcatgaa cggcaaggag 300
ctggacggcc gcaacatcac cgtcaacgag gccagtgccc gcggcgggcg tggaggcggc 360
ggctgctgcg ggtacggtgg tggccgtgga ggcgcgggct acggcggtgg cgggcgcccgt 420
gatggcggcg gcggctactg cggg 444

<210> 179
 <211> 444
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-048-Q1-K1-F4

 <400> 179

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 gccgggtccac ctgccaccgc cgggtccatgt gccgccgccg gttcatctgc cgccgccacc 120
 atgccactac cctactcaac cgccccggcc tcagcctcat cccagccac acccatgccc 180
 gtgccaacag ccgcatccaa gcccgtgcca gctgcaggga acctgcggcg ttggcagcac 240
 cccgatcctg ggccagtgcg tcgagttcct gaggcattcag tgcagcccgga cggcgacgcc 300
 ctactgctcg cctcagtgcc agtcgttgcg gcagcagtgt tgccagcagc tcaggcaggt 360
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 gcagccgcaa agcgggccagg tcgc 444

<210> 180
 <211> 437
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-F5

 <400> 180

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 tactgatatc acatttcaat cctcctacc tgttacttca acggtcttcg accacttaca 180
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 cccattttcca acatcaatca ctgacacatg caaatataaa cattatcacc acagcacagc 300
 aacagcaaca actactagta ccaacactgc tacatctaga tgcctttaac ccttacttct 360
 acctgcaaca gcatgcgctt agattaatcg cacttgctat ggcaaacgta actgcattac 420
 caacaacaac tgcaatt 437

<210> 181
 <211> 458
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F6

<400> 181

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tgctccatc aatccacaat gaacacttgc tcacagtgat attataccaa aattcctccg 180
acctgttact acaacggtct tcgaacaccg agctgcccac gtttacaggc tacaacatac 240
gacatcgact agcatcttac atcatccaat tatcccactg caacatcaat ctttgacaca 300
tcttactata caaaccaact acacacaata tctagaacca acactaccag ccatgacacc 360
tctagatgtg gtaaaccctg aatattactt gcaacatcaa gtgctagcat tcaaccaaca 420
gtgatctatc taacgtaact gcataccatc aactacat 458
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<210> 182
 <211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F7

<400> 182

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ctccttatgc tccttgggtc ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggt gtcttcggta 180
tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc tggcatctta 240
cctttatcac ccttggttct ccaacaatca tcagccctat tacatcagtt acctttggtg 300
catttattgg caaaaacat cagggcacia caactacaac aacttggtgt agcaaacctt 360
gtgcctact ctgagcaaca gcagtttctt ccattcaacc aactagctgc attgaactct 420
gcttcttatt tgcaacaaca c 441
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<210> 183

<211> 442
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-F8
 <400> 183

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 cggagtagcg gctggccggg ggcgtgagcg gatggaacgc ggcggtgctg gaggcggcca 180
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 tgctggcctg cggcgcgctg gagggcgccg tgatgaatcc ggcgcgcgcg ttcggggccc 360
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<210> 184
 <211> 361
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-F9
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 aaggcaccga ttgcacgggt cctgatccc tatctacttg attgctcttt gaacaatgg 180
 tatgctggct ccaataagaa aaaagccgaa aagagcaggt tccgaccatt tgccatggaa 240
 accccatcac tctgaggact caaatgagaa gaaaaaaact cagaatgcat caaaccaaca 300
 ttctgtcaaa acggatattg acgaagaatc acatgaacgt gtgcaacctc aaagggttgg 360
 c 361

<210> 185
 <211> 391
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G10

<400> 185

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ataccgtcgt aggtgcatct gtcacctccg gtacacctgc acacctgcgg tgcattcttg 180
accgacggtc caactgccga cgctgcacg actgacaacg ccggtgcatg tgccgtcgca 240
cggatcatct gccgtcgtca ccatgccact accatactta acacggccgg cctcagtctg 300
ataccagcc acacacatgc tcatgccaac agacgtatac caaccgtgc cagctgcacg 360
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<210> 186

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G11

<400> 186

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tcctatagct tcccttcttc ccccgtaact ctaccagcg gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
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ggcacaaaac atcagggcac atcaactaca acaacttggt ctagcaaacc ttgctgccta 360
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<210> 187

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G12

<400> 187

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tgcaatgcag atgccctgcc cctgcgcggg gctgcagggc ttgtacggcg ctggcgccgg 180
cctgacgacg atgatgggcg ccggcgggct gtacccttac gcggagtacc tgaggcagcc 240
gcagtgcagc ccgctggcgg cggcgcccta ctacgccggg tgtgggcaga cgagcgccat 300
gtaccagccg ctccggcaac agtgctgcca gcagcagatg aagatgatgg acgtgcagtc 360
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<210> 188

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-G2

<400> 188

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ttatgctgat gcaaaccgtg tatctgctat cattttgggc ggaggcactg gatctcagct 180
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tattgatata cctatgagta actgcttcaa cagtgggata aataagatat ttgtgatgag 300
tcagttcaat tctacttcgc ttaaccgcca tattcatcgt acataccttg aaggcgggat 360
caactttgct gatggatctg tacaggtatt agcggctaca caaatgcctg aagagccagc 420
tggatg 426

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<210> 189

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F11

<400> 189

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tagcagatac tactaccatt tggccagata gctacgtcat gcaccacttc cactatgaaa 180
 caacaacatt cgattacgtt ctaccatcag tctgtggcta acaccgcaac agtattacaa 240
 ctgctacaac tgctgccctt tgtccaactt gctttgacat agcccgcatg cttgtaccaa 300
 catcacatga tcgtcggcgt catctttcaa atggattata acctggaatt caataatgaa 360
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<210> 190

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D8

<400> 190

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 ttgaaggggtg ctcatgtcac gatgaacgta cagaccataa gtcagacttt gatgtctctg 180
 atgatgataa gacgacaaga ataagctctt tgaagaaaaa agcaatagat gcatcaacga 240
 agattaggca ctcatataaa aagactagac ggaagagcgg tagtagggtc ctttctgcgt 300
 ctattgagga tgtgcgcgat ctacaggagc tgcaagctgt tgaagcattt atacaagcat 360
 tactcttggg tgagctgttg cctgcaaggc atgacgacta tcatatgacg ctgagatttc 420
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<210> 191

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D9

<400> 191

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 tgaaccctgc cttgcagcaa cccatcgttg gaggtgccat cttttagatt acatatgaga 180
 tgtactcgac aatggtgccc tcataccgac atgtgtttcc tagaaataat caatatattg 240

attgagattc atctcgaaaa actaatacag caattacctt agaaggataa attggcacia 300
aacaataagg cacaacaact acaacaactt gtgctagcaa accttgctga ctactctcaa 360
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<210> 192

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E10

<400> 192

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ccagatttag cccttctggc taattgcact ttatgcgagc ccatcatagc gtacacttat 120
tgaacaatgc tgaattgtcc taaagccaga ttgccaaatg cttgaccagg gacttaagga 180
tatgaagacc tattgccaaag ccatcatgca gcaaaagcgc ttgtgagagc gtcttacaac 240
aacaattgcc caattgacac acaatgattg ccacatataa caatacaaag gataacgacg 300
taacaataac aacctttcgt acatcattga gccacctagg catggtgaac cctgatccct 360
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<210> 193

<211> 321

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E11

<400> 193

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gatattttgc ctcttatgc tccttggctt ttctgaaagt gctgctacgg tgaccatttt 120
cccacaatgc tcacatgctt ctatagcttc ccttattacc ccgttcctct caccagcggg 180
gtcttcggta tgtgaaatcc caattcttca accctatagg atccaacatg gtaactacac 240
aagcattgaa ccttattcaa tctgcaggc tatcacatct ggcattctac ctccataact 300
cgtgttgctg catcaatcgt c 321

<210> 194

<211> 322
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-E12

 <400> 194

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 atcctcctgg acgtgatcgc cttcggcctg ggcgctcgccg ccgagcagcg ccggagccgg 180
 tccaccgtca ccccgagcgc cgccaaggag tacgactact gcgtctacga ctccgacatc 240
 gccacgggggt acggcgctcg cgcgctgctc ctctcgccg ccgcgaggt ggtgctcatg 300
 gtcgccagcc gctgcttctg ct 322

<210> 195
 <211> 436
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-E2

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 ggtgggcaat gcacctacgt acctacaaca acagctgctg caacaaattg taccagctct 180
 gactcaacta gctggggcaa accctgctgc ctacttacia cagttgcttt cattcaacca 240
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 ggcagcggct aaccattga tcgtacctt cctgcagcag caacatcaat tgctgccata 360
 caaccagttc tctttgatga accctgccgt gcagcaaccc atcggttgag gtgccatctt 420
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<210> 196
 <211> 442
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-048-Q1-K1-E3

<400> 196

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ttttgcttcc ttatgctcct tgggtcttct gcaagtgtcg ctaccgcaac cattttccca 120

caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcggtgtct 180

tcagtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc 240

atcttacctt tatcaccctt gttcctacaa caaccgtcag ccctattaca gcagttacct 300

ttggtgcatt tgttggcaca aaacatcaaa gcacaacaac tacaacaact tgtgctagga 360

aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420

aactctgctg cttatttgca ac 442

<210> 197

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E4

<400> 197

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cagtgtcac ttgtccttag tgccattatt ccacagttcc tcccaccagt tacttcaatg 180

ggcttcgaac atccagccgt gcaagcctac aggctacaac tagcgcttgc ggcgagcgcc 240

ttacaacaac caattgccca attgcaacaa caatccttgg cacatctaac cctacaaacc 300

attgcaacgc aacaacaaca acaacaacag tttctgccat cactgagcca cctagccgtg 360

gtgaaccctg tcacctactt gcaacagcag ctgcttgcac ccaaccact tgctctggcg 420

aacgtagctg cataccagca acaac 445

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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E5

<400> 198

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 ccgggcagct tgctggtcaa agctgggtcg gtgggcaaaa gctgttgagg actgcagcga 120
 ggccctaaga gtccagccta actacacaaa ggctctgcta aggcgtgcgg cgtcatatgc 180
 aaagcttgag cgctgggcgg actgtgtgcg ggactacgag gtgcttcgca aggatcttcc 240
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 tggagaggtg gtatctaata tgaagtttgg aggggtagtt gaagaaatta tcagcttaga 360
 gcaactccaa gatgttatcc gttcacctgg tgtatccggt ctttacttca tggctacaat 420
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<210> 199

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E6

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 tgatgagttg aagtcccaga tggaggagct gaaagcagac ttgaacaaag caaagaaagg 180
 gaagcctcta tgctatgatt cataggggaa gccaaagagg aacttggtc ctgaagcgat 240
 tcaaaagaag gttgcaacac ttgaaggcaa gatagagaag atggagatgg ataagaggat 300
 aaaagaggat ctgaagacag ttgcgctggg aacgtcaaag atcaactatc ttgatcctag 360
 aataaccgtg gcatggtgca aacgccatga agtccttatt gagaagattt tcaacatatc 420
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<210> 200

<211> 437

<212> DNA

<213> Zea mays

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catcatggcc ctgcctccc gcgcgcgcgc agccgcctg gcgtgcgtcc tcctggcgct 120
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tatctcccag gccgccagcc tgatcgactg catcgactac gtccagaagg ggagcagcgc 240
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cgtgggctgc ctctgtcccc tcgcccgtc caactccagt aacctgggct ttcccatcga 360
catgaagcgc gtgctggcgc tccccggcgc gtgcggcgcg tccaacgccg tcttcagcaa 420
gtgcaacatt ttcgcgc 437

<210> 201

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-E9

<400> 201

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aaccatcaag gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct 360
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<210> 202

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F1

<400> 202

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tcattattcc acaatgctca cttgctccta gtgccattat accacagttc ctccgaccag 180

ttactttcaat gggcttcgaa cacctagctg tgcaagccta caggctacaa caagcgcttg 240
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 ccatacaaac catcgcaaca caacagcaac aacagttcct accagcactg agccaactag 360
 atgtggtgaa ccctgtcgcc tacttgcaac agcaggtgct tgcattcaac ccacttgctc 420
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<210> 203

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-F10

<400> 203

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 ttccaggaac cgtcttttaa ccatgaccat taaccttccc agcttatatg aggttgtcac 240
 aggaacagcc aagaaagagc ccaaagaaaa aactcctaaa agcaacatta agactaacia 300
 atctgggtca aagccctcgc gccatgcgga acccaactca agggteccaa agatgccacc 360
 tccaaaggac gaggagagtg aagaggagga aggggaacca caggaagacc aggagagtgc 420
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<210> 204

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D6

<400> 204

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gcatttggtg gcacacaaca tcaaggctca acaactacaa caacttggtg tacgaaacct 360
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tgctgcttat ttgcaac 437

<210> 205
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<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C2

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aactctgctg cttatttgca aca 443

<210> 206
<211> 411
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C3

<400> 206

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<210> 207

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C4

<400> 207

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<210> 208

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C5

<400> 208

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ccaagaagca catgcatatt cgacgagtga tggctattcc ttggacatgt ttgttggtga 180
cggctgtgag tatgaggctg acattctcca aagcgcattg acagaaggcg ttgataaaat 240
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ggaggtttat cttcatcta gactttggcc agataccagc tgatgcagct gatgttcggg 360
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<210> 209

<211> 432
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 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-C6
 <400> 209

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 gtacaaacca tcatggcaca acagctgcaa caactcgtgc taccagtgat cagccaagta 360
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 tctacactga ac 432

<210> 210
 <211> 404
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-C7
 <400> 210

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 ctcagcaaca gcagtttctt ccattcaacc aactagctgc attg 404

<210> 211
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C8

<400> 211

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gcgaccattt ttcctcaata ctcaacaagct cctatagctg cccttcttcc ccatacctt 180
ccatcaatga ccgcttcagt ttgtgaaaac ccagcccttc aaccctacag gctccaacaa 240
gcaatcgcaa caagcaactt acctttatca cccctgttct ttcaacaatc gccagcccta 300
tctttgggtgc agtcattggt acaaaccatc agggcacaac agctgcaaca actcgtgcta 360
ccagtgatca gccaaagtagc tctggcaaac ctttctccct actctcagca acaacaattt 420
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<210> 212

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C9

<400> 212

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ctctcatccc taactccttt atactggccc tctcatactc aatgaccttc ctgcgacatc 180
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accacaccct gcactgccat accaacagtc catcaacgtg cagcatctgg cgctcctccc 360
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<210> 213

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D1

<400> 213

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 ttcaatgtgt gaaaccccaa ttgttcaacc ctacaggatc caacaggcaa tcgcaacagg 240
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 tttggtccat ttggtggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 360
 aaaccttgct gcatactctc agcaacatca gtttcttcca ttcaaccaac tggctgcatt 420
 gaactctgct gcttatttgc aacaa 445

<210> 214
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 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-D10
 <400> 214

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 aatgctcaact tgctcctagt tccattattc cacagttcct cccaccagtt acttcaatgg 180
 ccttcgaaca cccagctgtg caagcctata ggctacaaca agcgattgcy gcgagcgtct 240
 tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaaca atacaaacca 300
 tcgcaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atgggtgaacc 360
 ctgtcgcta cttgcaacag cagctgcttg catgcaaccc acttgctcta gcaaacgt 418

<210> 215
 <211> 425
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-048-Q1-K1-D11
 <400> 215

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aaaccatcag ggcacagcat ctgcagcaac tcgtgctacc tgtgatcaac caagtagctc 180
 tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 240
 cactgaaccc tgctgcttat ttgcagcaac aactattacc attcagccag ctagctactg 300
 cctactctca gcaacaacaa cttcttacat ttaaccaatt ggccgcactg aaccccgtg 360
 cttatttgca gcagcaaata ctactacat ttagccagct agctgcagca aaccgtgctt 420
 ccttc 425

<210> 216
 <211> 399
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D12

<400> 216
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 tgatgttcag gctcttcac cgcgcgtaga aaggatggcg gcagcggcag acctactcgg 180
 cgtcagttgc gttgtctact gcgaattttt gtctgggtgat ccatacttcc gagtgcattc 240
 ccgtgccgga agcgggtcccc tctaacgact tcgtcacgcc gactgaggcc gacctgttag 300
 atccctccat cgaggctcct actgagatga ctccggtcgc gaagaggagc ccagttgagc 360
 tccttcgcgt gttctacgtc aaattcaaga aggatctgt 399

<210> 217
 <211> 447
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D2

<400> 217
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 caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
 tcaatgtgtg aaaccccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240

atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
 ttgggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
 aactctgctg cttatttgca acaacaa 447

<210> 218

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-D3

<400> 218

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 agtggtttctt gtacacagac aggcggctgc agctgtgggc aacaacaaag ccatgagcag 180
 caacatcatc cacaacaaca tcattccaaa aaacaacaac atcaaccacc accacaacat 240
 caccagcagc agcaacacca acaacatcaa gttcacatgc aaccacaaaa acatcagcaa 300
 caacaagaag ttcatgttca acaacatcaa caacaaccgc agcaccacca ccaacaacaa 360
 caacaacagc accaacaaca acatcaatgt gaaggccaac atcaacatca ccaacaatca 420
 caaggccatg tgcaacatca cgaacag 447

<210> 219

<211> 408

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-048-Q1-K1-D4

<400> 219

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 ttctaagct aagcagtttt tggatgtgtc ggcatagact gtcttttgtt ttggaactag 180
 aattcctttt tgctctgtta ggcctggacc cactgtataa tgctatgttg ctttggatgg 240
 ctgacgatgg ttaccgctgt gttgctagcc atgtggtact tgatctgtat cacggttgca 300

aataagtgct gtttctaaaa aaaaaaacnn caacaacata aacaacaata gcttcaacaa 360
 caacaactcc tactacaaca tcaactgtata agcccacatc atcataac 408

<210> 220

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-048-Q1-K1-C12

<400> 220

gaaagcacaa tagtgtacca acaatggcag ccaaaatatt ttgcctcctt atgctccttg 60
 gtcttttctgc aagtgtctgt acggcgacca ttttcccgca atgctcgcaa gctcctatag 120
 cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa aaccaattc 180
 ttcaacccta caggatccaa caggcaatca cagctggcat cttaccttta tcacccttgt 240
 tctccaaca atcatcagcc ctattacatc agttaccttt ggtgcattta ttggcacaaa 300
 acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360
 aacagcagtt tcttccattc aaccaactag ctgcattgaa ctctgcttct tatttgcaac 420
 aacaacaact acca 434

<210> 221

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G4

<400> 221

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 atgccctgcc cctgcgcggg gctgcagggc ttgtacggcg ctggcgccgg cctgacgacg 180
 atgatgggcg ccggcgggct gtacccttac gcggagtacc tgaggcagcc gcagtgcagc 240
 ccgctggcgg cggcgcctta ctacgccggg tgtgggcagc cgagcgccat gttccagccg 300
 ctccggcaac agtgcctgcca gcagcagatg aggatgatgg acgtgcagtc cgtcgcgcag 360
 cagctgcaga tgatgatgca gcttgagcg 389

<210> 222
 <211> 342
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G5

<400> 222

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 tccacaatgc tcacttgctc ctagtgccat tattccacag ttctcccac cagttacttc 180
 aatgggcttc gaacacctag ctgtgcaagc caacatgcaa caacaagcgc ttgcggcgag 240
 cgtcttataa caaccaattg cccaattgca acagcaatcc ttgccacatc taacaatata 300
 agccatcaca acgcaacagc aacaacagtt tctaccagca ct 342

<210> 223
 <211> 283
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G6

<400> 223

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 gcttggaag aagtttgcaa ccggagcttc tggtgttaag ggccctacgg agaaggagca 120
 aatcgacgta caaggggaca tctcatatga tattgtggag ttcattacag atacatggcc 180
 tgatgtacct gagtcggcca ttttcttcat tgaagatgga aggaagggtc ctgctgcttg 240
 atgcatatg ttttataagg cagcagacca atggatttac aaa 283

<210> 224
 <211> 135
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-G7

<400> 224

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 ccccagcaat ttcttccatt caaccaaagtg gtagtaagtt gttgnntgct gtnnataagc 120
 aggagagtgc agtgc 135

<210> 225
 <211> 389
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-044-Q1-K1-G8
 <400> 225

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 cggctgcggc tgccagccac cgccgcccgt tcattctaccg ccgcccgtgc atctgccacc 180
 tccgggttcac ctgccacctc cgggtgcatct cccaccgcgc gtccacctgc cgccgcccgt 240
 ccacctgcca ccgcccgtcc atgtgccgtc gccgggttcac ctgccgtcgt caccatgcca 300
 ctacctact caaccgcccc ggccctcagcc tcattccccag ccacacccat gcncgtgcca 360
 acagccgcat ccaagcccgt gccagctgc 389

<210> 226
 <211> 417
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-G9
 <400> 226

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 gcttgcggtc ttccccata ccttccatca atgatagctt cagtatgtga aaaccagct 120
 cttcagccct ataggctcca acaagcaatc gcagcaagca acataccttt atcacccttg 180
 ttgtttcaac aatcgccagc cctatctttg gtgcagtcac tggtaaaac catcagggca 240
 cagcagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc aaacctttct 300
 ccctactctc agcaacaaca atttcttcca ttcaaccaac tgtctacact gaaccctgct 360
 gcttatttgc agcaacaact attaccattc agccagctag ctactgcta ctctcag 417

<210> 227
 <211> 338
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-044-Q1-K1-H1

 <400> 227

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 ctactagcac attatgcatg cgtggccaac gcgacatttt tgcgtgcgcg ctactgcct 120
 ccaatagctc acattgctca ctcacaccta gcatcaatgt tcgatacagt atgtgaaaac 180
 ctactttctat aaccctataa gatccaacta gcaatggcta catgctacat accgcgatca 240
 ccgttggcgc aacaatcgat agacctatct aaggtgcact ccttggcaca gaccatctag 300
 gcacaccaac tgtagcaact catgctacac gagatcaa 338

<210> 228
 <211> 426
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-044-Q1-K1-H10

 <400> 228

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 ggcgacggcg accgcgacct ctccggcgag ggcttcgtgg cggcctacgg ttcccgcgac 120
 ctccggcatcg gcagcaggag tctgcttccg tgttgagcgc aagcgctttc cagggctccg 180
 aacggcaagc acctgtcggc accgacaccg aggagaaca aggctcaca cagctcacgt 240
 caagagcggg gaagccgagg ggcgtccaag cacggaggag agcgcaactg gcacgcggcg 300
 cccggacgag gactccttgc ggcgcgagct cgaaaccgcg atcgaggagg aggactacgc 360
 gcgcgccgcg gcgctccggg acgagctgcg cgtgctccag gaggactgcc gggcccgcgt 420
 gctggc 426

<210> 229
 <211> 412
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-H11

<400> 229

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gctgccagcg ccagcgccgg gacctcctgc gtgccgggggt gggccatccc gcacaacccg 180
ctcccgagct gccgctggta cgtgaccagc cggacctgcy gcacgcggcc gcgcctcccg 240
tggccggagc tgaagaggag atgctgccgg gagctggcgg acatcccggc gtactgccgg 300
tgcacggcgc tgagcatcct catggacggc gcgatccgc cgggcccga cgcgcagctg 360
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<210> 230

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-H12

<400> 230

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tgcatatgaa catctacaac ctctacatgc tctcatccaa ctacctgctc tgaaccctct 120
ctcctaccag caacagcact tgcacctatt acatccactt gctctaccat tcataacatc 180
catactcaac aacatcacac tattacaaca atcatctacc acctctaaca tatctcctca 240
tcttcatcgc tcacagctaa ctacaacatg ctcaactgat ctcatctaca tctctcccta 300
ctgtcaatgc acctacatac ctataacaac agacgggtgct aca 343

<210> 231

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-H2

<400> 231

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gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg gcattctacc 240
 tttatcacc ttgttctctc aacaatcctc agccctatta caacagttac ctttggtgca 300
 tttattggca cataacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat tgaactctgc 420
 ttcttatttg caacaacaac aac 443

<210> 232

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-H3

<400> 232

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 ttccattcaa ccaactgtct aactgaacc ctgctgctta tttgcagcaa caactattac 180
 catttagcca gctagctact gcctactctc agcaacaaca acttcttcca ttaaccaat 240
 tggcgcact gaaccccgct gcttatttgc agcagcaaat actactacca ttagccagc 300
 tagctgcagc aaaccgtgct tccttcttga cacagcaaca gttgctgcct ttctaccagc 360
 agtttgccgc taaccccgca accctcttac aactacaaca attggtgccc tttgtccaac 420
 ttgctttgac ag 432

<210> 233

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-H4

<400> 233

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 tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctccctccag 180

ttactttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcgcttg 240
 cggcgagcgt cttagaacia ccaattgccc aattacaaca acaatcctta gcacatctaa 300
 ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
 ctatcgctta cttgcaacia cagctgcttg catccaaccc acttgctttg gcaaacgtag 420
 ctgcatacca acaacaacia cag 443

<210> 234
 <211> 392
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-044-Q1-K1-H5

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 tataagttaa ggagtaaact tataactgtg tccaaacatg ctacacaaa ttcataccac 180
 attataattt ttggttaaatt attccacaca tgtatttttt acaagaaact aaattttgca 240
 cacaatgta gcattgtaga catgtataat tctatgaacc cgtgaactta acaacaccaa 300
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 tgaaactatt ggctgaaaat atgaccaacg ta 392

<210> 235
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-H6

<400> 235
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 tttcagcaaa gatgtaatgc ttcagctcct ccgtgaacaa tttcctgaag ccaatgaact 180
 tggaagtgag gttattccag gtgcaaccag cattggaaaag agggttcagg cttatctgta 240

tgatggttac tgggaagata tccgtaccat tgcggcattt tataatgcaa acttgggaat 300
aaccaagaag ccaataccag atttcagctt ctatgaccgt ttgctccaa tttatacaca 360
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tgaa 424

<210> 236
<211> 354
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-044-Q1-K1-H7
<400> 236

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agaagacggc ggccacggcg tcctggtgaa gctccacgac gacgttcaaa cgtgcgcgta 180
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<210> 237
<211> 429
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-044-Q1-K1-G3
<400> 237

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gcggcggtcg gaagcttggt gccgaagatg acagggagga tgagtgtggc atttgccctg 180
agacctgcac caagatggtc cttccgaatt gcaacatgc catgtgcac aactgttacc 240
gagactggta cacaaggctc cagtcatgcc cgttctgccg cgggagcctg aagagggctc 300
ggtccagaga cctgtgggtg ctcaccggcg acgacgacgt gatcgacacg gtgacgctgg 360

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acaacatgc 429

<210> 238
<211> 397
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F1

<400> 238

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tcattattcc acaatgctca cttgctccaa gtccattat tacacagttc ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaac agcagtt 397

<210> 239
<211> 385
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F10

<400> 239

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tttctgcagc cggatttggg atccgcgaga tgtcttggtc cgcgcccgcac gacatcctcc 180
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gagtgattgt gggggaacaa tattgtgatg ttctcttggg gctgtacgta atccggggag 300
agaacgttgt tttaatcgga gaattggatc gcgaaaagga tgaactccct gctcacatga 360
cctgtgtttc agaagcagaa ataag 385

<210> 240

<211> 410
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-044-Q1-K1-F11

<400> 240

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ctttcttccc atggccgtct gcagcttctc ccatgggtgag ctccctccag tgccttaggt 180
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ctgtgcccag cctcctatct gatcttccgt ggagcagtag cctactcta attctgcagc 360
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<210> 241
 <211> 408
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-044-Q1-K1-F12

<400> 241

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tcagtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagcaggc 180
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<210> 242
 <211> 373
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F2

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acttatgata cttcatactc agaccaggag gatgggtctca gggatgatga aattgaaaga 180
tttcttttatt caagggcgaa gcgaggactt ggggctgttg gttccaggat ggacgagcct 240
gggccatacc ttgattctct gtcccatcat caggacaatg gacctagccc ggacatacgt 300
gtggaagaaa aatgggaacg catagtacaa ggcccatata agcctgcatt ttgcggatgc 360
aagtctctcg atg 373

<210> 243

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F3

<400> 243

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cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
gcttttagtat gtgaaaaccc agcccttcaa ccctacagga tccagcaagc aatcgcaaca 240
agcaacttac ctttatcaca cctgttcttt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcagaacag ttgcagcaac tcgtgctacc agtgatcagc 360
caagtagctc tggcaaacct ttccccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta tactgaaccc tgctgt 446

<210> 244

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F4

<400> 244

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 acatgtgttg ctaacgcgac aattttccct caatgctcac aagctcctat agcttccctt 180
 cttcccccat accttccatc aattatagct tcaatatgtg aaaaccagc tcttcaacca 240
 tataggcttc aacaagcaat cgcagcaagc aacatacctt tatcgccctt gttgtttcaa 300
 caatcgccag ccctatcttt ggtgcagtca ttggtacaaa ccatcagggc acaacagctg 360
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<210> 245

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F5

<400> 245

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 gcaacaggtc cggactgttt acgtgctatt acgcgaatac ctttgcgaca agaaacgcta 180
 gtctctttcg aaaagatagt ttcagccact gacagttcct tttctctttg caagatcctt 240
 tgctgtttat gtttcatatt tttgcatgta acatccctta gcaatctggt ttttttttgt 300
 ttcttctgtg gcagccaaat gtgtattcag agtctcaaac tgagctgcta cagaagcaga 360
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<210> 246

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F6

<400> 246

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 acaagctcct atagcttccc ttattcctca gtacctctta ccagcggtgt cttagatatg 180

tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg ccattctacc 240
 tttatgaccc ttgttagtgc aacctcatc agacctatta cagcacttac ctttggtgca 300
 tttattgtca caatacataa gggcacaaca actacaac 338

<210> 247

<211> 403

<212> DNA

<213> Zea mays

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<400> 247

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 aggttctgtc tgatgatgag aagcgatcga tctatgataa atatggagaa gcaggctctga 180
 aggggtgctgg catgggcaca ggagattact caaaccggtt tgatctcttt gagtccctgt 240
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 gcaaggtgat gatgagagct acaatctggt actcaatttc aagggaagct gtgtttggtg 360
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<210> 248

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-F8

<400> 248

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 agctttatac agaagaaaga gagtgagcat gctgatggcc ctgtccagct ttccaagttt 180
 cttggacggg acaagaaaaa ggaagaaggt actcaacgga gtgcaatctc tggtaaaaag 240
 ataatgatga agcttgagaa gacaaaggaa gacaaggcag cagagagcat gcgaaacgaa 300
 ctgttgaagt ttctgaatgc cagttacgat tgatgtgttc gaatcgctgg cgcataaagt 360
 gcagaattgc cctttttatc gtctttgcac tgggtgctttt ggtgatactt aagtataaac 420

gttttggttct t

431

<210> 249

<211> 121

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G1

<400> 249

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aaagtttttt atctgatgtt tgtggcttcc cagaaataag aaagtacatt tctagattct 120

t 121

<210> 250

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G10

<400> 250

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tcagccgct ctctgctcag atctgcggcg gagcctcgcc ggcggcctgc gccccgcggc 120

gccgccgac caagatgcct tcgtgcgtgc agggatgctg ctgctgctcg tccctgcgcc 180

ttctcccccg cgacgacgcy ctctcgctcc cctccgctg cgcgcaccgc ctgaagcctt 240

ggtcttgggc tgcccaatcc cccacctcgt cctcctaacy cttgtccccg cccgctcccc 300

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ct 362

<210> 251

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G11

<400> 251

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ttgcgggcgag cgtcttataa caaccaattg cccaattgca acaacaatcc ttggcacatc 120
 taacaatata aaccatcgca acgcatcagc aacaacagtt cctaccagca ctgagccacc 180
 tagccatggt gaaccctgtc gcctacttgc aacagcagct gcttgcatcc aaccacttg 240
 ctctagcaaa cgtagttgca aaccagcatc aacaacaact gcaacagttt ctgccagcgc 300
 ttagtcaact agccatggtg aaccctgccg cctacctata acagcaacaa ctgctttcat 360
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<210> 252

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-G12

<400> 252

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 gcctacttgc aacagcagtt gcttgcatcc aaccacttg ctctggcaaa catagttgca 180
 taccaacaac aacaacaatt gcaacagttt ctaccagcgc tcagtcaact agccatggtg 240
 aaccctgccg cctacctata acagcaacaa ctgatttcat ctagccctct cgctgtgggt 300
 aatgcaccta catacctgca acaacagttg ctgcaacaga ttgtaccagc tctgactcag 360
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<210> 253

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-E9

<400> 253

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 caatttcttc cattcaacca actggcagca ttgaactctc ctgcttattt acagcagcaa 180
 caactactac cattcagcca gctagctggt gtgagccctg ctaccttctt gatacaacca 240

cagttgttgc cgttctacca gcacgctgcg cctaacgctg gcaccctctt acaactgcga 300
 caattgctgc cattcaacca acttgctctg acaaaccag cagcgttcta ccaacaacc 360
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<210> 254

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D2

<400> 254

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 tcccacaatg ctcaacagct cctatagctt ccttcttcc ccatacctc tcaccagcgg 180
 tgtcttcaat gtgtgaaacc ccaattgttc aacctacag gatccaacag gcaatcgcaa 240
 caggcatctt accattatca ccttgttcc ttcaacaacc gtcagcccta ttacagcagt 300
 tacctttggt ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc 360
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<210> 255

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D3

<400> 255

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 agtgctgctg cgttctggcc tcagggtcac tcccggataa tagctagcct actcatctct 180
 catgtaactc tgtttggtt gatgagcaca aaggaagctg cgtactccac ccctctgctc 240
 atcttcctgc ctctgctgac gatctggtc cacaataact gcaagagccg gttcgaacca 300
 gctttcagaa agtatcctct tgaggaagca atggcgaagg acaccatgga gcacgcatcg 360
 gagcctaacc tgaacctgga atccttctg gctaacgc 398

<210> 256
 <211> 400
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D4

<400> 256

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accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac aaatgcgttc  120
attattccac agtgctcact tgctcctagt gccattattc cacagttcct cccaccagtt  180
acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg  240
gcgagcgctt tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc  300
ctacaaacca ttgcaacgca tcaacaacat caacaacagt ttctgccatc actgagccac  360
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<210> 257
 <211> 394
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D6

<400> 257

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tccttgctgt ttcattcagat atttctaccg cgactattat tccacaatgc tcacaacaat  120
acctctctcc agtgatagcc gctagatttg aataccatc tataacaatcc tacaggctac  180
aagaggccat cacagcaagc atcttacggt cgtagcatt gaccgtccaa caaccatatg  240
ccctattgca acaaccatcc ttagtgaatc tgtatctcca aagaatcaca gcacaacaac  300
tacaacaact gttgctttca acaattaatc aattatttgc agcgaacctt gctgcttacc  360
ttcagcatca acaatttctt ccatttaatc aact                               394
  
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<210> 258
 <211> 345
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D7

<400> 258

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tgcgggcgcg gagctccgtc cccctgtccg gcctcctcca ccacggagga gcgcccgcgc 180
cgctgcaggc cgccggcgcc actggggcct ccccgctgat cttgtcgac cagcagcagc 240
agcagcacac ggccgccttc gccgtcctgc cgggtgctcaa gatcagggaac tccgcgtccc 300
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<210> 259

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D9

<400> 259

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caatgtctac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagcaggc 240
atcttacctt tatcaccctt gttcctccaa caaccgtcag cctattaca gcagttacct 300
ttggtgcatt tgttggcaca aaacatcaaa gcacaacaac tacaacaact tgtgctaaga 360
aaccttgtct cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420

<210> 260

<211> 417

<212> DNA

<213> Zea mays

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<223> Clone ID: LIB3061-044-Q1-K1-E11

<400> 260

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cttttattcc acaatgctca caacaatacc tctctccggt gacagccgcg ggatttcaat 180
 acccaactat acaatcctac atggtacaag aggccatcca agcaagcatc ttacggtcat 240
 tagcattaac cttcaacaa ccatatgctc tattgcaaca gccatcctta gtgcatctgt 300
 atctccaaag aatcgcgga caacaactac aacaacagtt gctaccaaca atcaatcaag 360
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<210> 261

<211> 332

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-E2

<400> 261

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 cagctagctg atgtgagccc tgctgccttc ttgacacaac aacagttggt gccgttctac 120
 ctgcacgcta tgcctaacgc tggcaccctc ttacaactgc aacaattgct gccattcaac 180
 caacttgctt tgacaaactc aacagtgttc taccaacaac ccatcattgg tgggtgccctc 240
 ttttagattg cttatgagtt atagttcaat aatgaagttt tttggatgat gtttgtggcg 300
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<210> 262

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-E3

<400> 262

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 gaagcctgat ctccaccggg ttcgcagcag gggcgcagga cctcgatcac gaggaggcag 180
 gggagcagca tccacaacca caagccatgg cggggagggc caacatcccc actaacaact 240
 ccgccctcat cgcaatcatc gccgacgagg acaccgtcac tggcttcttg atggccggcg 300
 ttggcaatgt tgatctgcgc aagaaaacca actacctcct cgtcgacaac aagacgacag 360

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404

<210> 263

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-E4

<400> 263

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gatggcgctcg ccggacgacg agataagccg gctcttcgct atccgccgca cgggtgtatga 180
gatgctgctg gaccgcggat acgggtgtccg cgacgaacaa atcaagctcg aaaggcacia 240
gttcacgaa cgctacggca accccgtccg ccgtgacgag ctcaccttca acgccacaaa 300
gttgaacggc ccatcggacc agatctacgt gttctttcct aatgaggcaa agcccggngt 360
gaagacaatc aggaactacg tcgagaagat gaagaacgag aacgtcttcg gccgcatact 420
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<210> 264

<211> 393

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-E5

<400> 264

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgatgtct 180
tcagtatgtg aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca gcagttacct 300
ttgggtgcatt tattggcaca naacatcatg gcacatcaac tacaacatct cgtgctagca 360
aaccttgctg cctactctca gcatcagcag tta 393

<210> 265
 <211> 438
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-044-Q1-K1-E6

 <400> 265

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 ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatg 180
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 gcaagcaaca tacctttatc acccttggtg tttcaacaat cgccagccct atctttggtg 300
 cagtcattgg taaaacccat cagggcacag cagctgcagc aactcgtgct acctgtgatc 360
 aaccaagtag ctctggcaaa accttctccc tactctcagc aacaacaatt tcttccattc 420
 aaccaactgt ctacactg 438

<210> 266
 <211> 408
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-044-Q1-K1-E7

 <400> 266

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 ggcgctggag ccgggcgtca gctgctggcg ctgccgccac tgcaagggcg ggcggtacaa 180
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 cgccatgtgc gagccgctga gcggtggcgt gcacgcgtgc cgtcgcgctg ggggtggggc 360
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<210> 267
 <211> 412

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-E8
 <400> 267

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 ctcccttct tccccatac ctctcaccag cgggtgtctt aatgtgtgaa accccaattg 180
 ttcaacccta caggatccaa caggcaatcg caacaggcat cttaccatta tcacccttgt 240
 tctccaaca accgtcagcc ctattacagc agttacctt ggtccatttg gtggcacaaa 300
 acatcagggc acaacaacta caacaacttg tgctagcaaa cttgtgtgca tactctcagc 360
 cacatcagtt tcttccattc aaccaactgg ctgcattgaa ctctgtgtgt ta 412

<210> 268
 <211> 412
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-D12
 <400> 268

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 acaaatgcgt tcattattcc acagtgtcct cttgtctcta atgccattat tccacagttc 180
 cttccaccag ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa 240
 cttagcgttg cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg 300
 gcacatctaa ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcca 360
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<210> 269
 <211> 400
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-D5
 <400> 269

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cctcaatgct cacaaactcc tatatcttcc cttcttcccc cataccttcc atcaatcata 180
tctacaatat gtgaaaaccc acctcttcat ccctatatac tccaacaagc aatcactaca 240
aacaacatac ctctatcacc cttactgatt caacaatcac cagccatatac tttcttcat 300
tcattgctac aaaccatcaa ttacatata ctacaacaac tgcacctacc tacgatcaat 360
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<210> 270

<211> 305

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-D6

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gctttgacaa acccagcagt gttctaccaa caacccatca ttggtggtgc cctcttttag 120
atctcttatg agttatagtt caataataaa gttttttatc tgatgtttgt ggcttcccag 180
aaataagaaa gtacatttct agaaaaaaaa ataaacaaag aaaaaattga acatgtagac 240
tctggcaagt cgaccaccac tggacacctg atctacaagc taggcttaat tgacaagcgt 300
gtgat 305

<210> 271

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-D7

<400> 271

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atattttgcc tccttatgct ccttggctct tctgcaagtg ctgctacggc gaccattttc 120
ccgcaatgct cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg 180

tcttcggtat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct 240
ggcatcttac ctttatcacc cttgttcctc caacaatcat cagccctatt acatcagtta 300
cctttgggtg catttattgg cacanaacat cagggcacia caactacaac aacttgtgct 360
agcaaaccctt gctgcctact ctcagcaaca gcagtttctt ccattcaacc aactagctgc 420
attgaactct gcttctta 438

<210> 272

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-D9

<400> 272

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gagaacacat agccaccatc aatcaagaca aagggaaaac taccattacc tcaattggat 120
ttctgggtttt tgggctatca ttggattttt ggtaactga aatgtgtacc ttgcagtagc 180
tctatgtctc tatatggcat tatgggtgtc gaaactggat cattatattt tcatttgagt 240
gaaattctta tcaaagtgtg aaccttcagg ctccagcttg atctgattca tgtttttttc 300
tagattacca tagttgatga agcaaagaaa ttatacatgt tatttgctct tggggctaatt 360
gtttccatta tcttttctgg gctacaatga agtatttctc aaatttgccg aagacattgn 420
gtcctggaat tgatgg 436

<210> 273

<211> 312

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E1

<400> 273

cggacgcgtg ggcgaagtca ttccctcttc aagagggcat catcagattg ggcttattga 60
ttccggatta cttcaggcaa ggatcggagt tgctctgaat tgactgaacc atggcggcga 120
caatggcagt gaccaccatg gtgaccaaga accaggagag ctggctgtca ttgcaagtcc 180
cggccgtggc attcccttgg aagccaccaa gccgtggcaa gaaccgcggg cttgaatttc 240

cttggcgggc caaggtcggc aacgttcggc ttaaccggg gcccgcggtt cccggcgggc 300
cccaacccgc gg 312

<210> 274

<211> 389

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-E10

<400> 274

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caggcgggcg ctgtggctgc cagacaccac cgtttcatct accgcctccg ttctatatgc 120
cgcttcggtt ctatctgccg ccgcagcagc agccgcagcc atggcaatac cccactcaac 180
caccgcagct aagcccgctgc cagcagttcg gatcctgccg gcgtcggcag cgtcggcagc 240
ccgttctctgg gccagtgcgt cgagttcctg aggcaccagt gcagcccggc ggcgacgccc 300
tacggctcgc cacagtgccg ggcgctgcag cagcagtgct gccaccagat cangcaagtg 360
gagccgctgc accggtacca ggcgacata 389

<210> 275

<211> 197

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E11

<400> 275

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acttataacg actatttgac ctactacaat aacaaccctt tgtacatcta actataccaa 120
ccatatcatc tctctaccaa cactaactca tccatctagc cttctttaac attaactatt 180
acttgcaaca acatctt 197

<210> 276

<211> 321

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E12

<400> 276

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cggttgctacc gcgagtatga ttccacaatg ctcaacaaca tacctctctc cggtgacagc 120
cgcgagattt gaatacccaa ctatacaatc ctacaggcta caagaggcca tcgcagcaag 180
catcttacgg tcgttagcat tgaccgtcca acaaccatat gccctattgc aacaaccatt 240
cctattgaat ctatatctcc aaagaatcgc agcacaaca ctacaacaac agttgctttc 300
aacaatcaat caagtagttg c 321

<210> 277

<211> 250

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-E2

<400> 277

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ngcaactgcg acggcatcat gcgccagtgc aagtgcattca gggagtgcta gctagctagg 120
ctctaggatc tagcaagcta gctatatcgg cctttaatta aattaataag gatcgacgtc 180
gtggccggtc gctaaatatg tactactata cgtctacact acatgcaata atgcaaccac 240
atgtacgct 250

<210> 278

<211> 242

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E3

<400> 278

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atccgccaac atatTTTTcc tccttatgct tcttgctctt tctacatgtg ttgctaacgc 120
gacaaatggt catcaatgct tacaagctcc tatagcttcc catatttccc catacctttc 180
atcaattatt ggctaaatat gtgaaaaccc cactttttta ccctataagc ttttaacaagc 240

aa

242

<210> 279
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E4

<400> 279

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tcttagaaca accaattgcc caattacaac aacaatcctt ggcacatcta accatacaaa 120
ccatcgcaac gcagcagcaa caagcactga gccacctagc cgtgggtgaac cctatcgctt 180
acttgcaaca acagctgctt gcatccaacc cacttgcttt ggcaaacgta gctgcatacc 240
aacaacaaca acagttgcaa cagtttctac cagcgctcag tcaactagcc atgggtgaacc 300
ctatcgctta cctacaacag caacaacttc tttcatctag cccgctcgct atgggcaatg 360
cacctacata cctgcaacaa cagttgttgc aacaacagtt gctgcaacaa attgtaccag 420
ctc 423

<210> 280
<211> 434
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-046-Q1-K1-E5

<400> 280

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cgtcttcaaa tccaaaaaat ccttgtccgg ttgcaagaac ttggcactga aggaaagcca 120
aaacttcgag caccgtattc ttgcaaggtt gacagttttc ataatgggtga attggataag 180
catctagtag aagctaattt atccttccca ctcatgtga agccacaagt cgcttgtgga 240
gtcgctgatg cccacaatat ggcaactggt tttcagattg aagaatttag caacctcagt 300
gtgccccttc ctgctgtgct acaggaatac gtggatcacg gatccaagat tttcaagttc 360
tatgtgatcg gagacaaggt tttctacgcc gttagagact caatgccc aa cgcgcgcttn 420

ctgaagccgt cgtc

434

<210> 281

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E7

<400> 281

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ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca tttttcctca 120
atactcacia gctcctatag ctgcccttct tccccatac cttccatcaa tgaccgcttc 180
agtttgtgaa aaccagccc ttcaacccta caggctcaa caagcaatcg caacaagcaa 240
cttaccttta tcaccctgt tctttcaaca atcgccagcc ctatctttgg tgcagtcatt 300
ggtacaaacc atcagggcac aacagctgca acaactcgtg ctaccagtga tcagccaagt 360
agctctggca aacctttctc cctactctca gcaacaacia tttcttccat tcaaccaact 420
gtctacactg 430

<210> 282

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E8

<400> 282

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tatagcaaca atgaccgca aaatgttctc catcctaattg ctgctggctc tttctacatc 120
tggtgctaac cggaccattt ttcctcaata ctacattct cctatatctg tctacttcc 180
cccatacctt ccataatga cctctacaga tttcgaaaac ccatacctac aaccctacat 240
tctccaacia tcaatcgcaa catgcatctt acctttatca cccctgatat ctcaacattt 300
cacaacccta tctttaatgc aatcattggg acaaaccatc acggcacatc agcttcaaca 360
acttgatcta ccattgatca gccaaacttat ctatacaaac ctttctccct actctcaaca 420
acatcaattt acttcattca acc 443

<210> 283
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-E9

<400> 283

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gaagctggtg cttgtggttc ttgctttcat tgcttttagta tcaagtgttt cgggtaggca 60
gacaggcggc tgcagctgtg gtcaacaaca aagccatgag cagcaacatc atccacaaca 120
acatcatcca caaaaacaac aacatcaacc accaccacaa catcaccagc agcagcaaca 180
ccaacaacaa caagttcaca tgcaaccaca aaaacatcag caacaacaag aagttcatgt 240
tcaacaacaa caacaacaac cgcagcacca acaacaacaa caacaacaac agcaccaaca 300
acaacatcaa tgtgaaggcc aacaacaaca tcaccaacaa tcacaaggcc atgtgcaaca 360
acacgaacag agccatgagc aacaccaagg acagagccat gagcaacaac atcaacaaca 420
attccagggt catgacaag 439
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<210> 284
 <211> 396
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-046-Q1-K1-F1

<400> 284

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gagggtgttg ctggttgccc tcgctctcct ggctctcgct gcgagcgcca cctccacgca 120
tacaagcggc ggctgcgggt gccagccacc gccgcgggtt catctaccgc cgcgggtgca 180
tctgccacct ccggttcacc tgccacctcc ggtgcatctc ccaccgccgg tccacctgcc 240
gncgccggtc cacctgccac cgccgggtcca tgtgccgncg ccggttcacg tgccgncgnc 300
accatgccac tnaccctact caaccgcccg gcctcagcct catccncagc cacacccatg 360
cccgtgccaa cagccgcacg caagcccgtg ccagct 396
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<210> 285
 <211> 443

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-046-Q1-K1-D4

<400> 285

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 accctgtcgc ctagttgcaa gagcagctgc ttgcatccaa cccacttgct ctagcaaacg 120
 tagttgcaaa ccagcaacaa caacaactgc aacagtttct gccagcgctt agtcaactag 180
 ccatgggtgaa cctgcccgc tacctacaac agcaacaact gctttcatct agcccgcctg 240
 ctgtggccaa tgcaactaca taccttgac angaattggt gcaacagatt gtaccagctc 300
 taactcagct agctgtggca aaccctgttg cctacttgca acagctgctt ccattcaacc 360
 aactaactat gtcgaactct gttgcgtacc tacaacagcg acaacagtta cttaatccat 420
 tggcagtggc taaccattg gtc 443

<210> 286
 <211> 345
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-C10

<400> 286

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 caggatatta tccctctttg cgcttcttgc cctttttgtg agcgcaacaa atgcgttcat 120
 tattccacaa tgctcacttg ctcttagtgc cattattcca cagttcctcc cttcagttac 180
 ttcaatgggc ttogaacacc cagctgtgca agcctacagg ctacaacaag cgcttggcgg 240
 cgagcgtctt acaacaacca attgcccaat tacaacaaca atccttggca catctaacca 300
 taaaaccat cgcaacgcaa cagcaacaac aatttctacc agcac 345

<210> 287
 <211> 438
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-C11

<400> 287

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aacaactaca acaacgggttg cttccaacaa ttaatcaagt agttgcagcg aaccttgctg 120
cttaccttca gcaacaacaa tttcttccat tcaatcaact agctgggggtg aaccttgctg 180
cttacttgca ggcacaacag ctactaccat tcaaccaact tgtcggggagc cctgctgcca 240
tcttattgca gcaacagttg ctgccattcc gtctacaagt tgttgcaaac attgctgctt 300
tcttgcaaca acaacaattg ctgccatttt acccacaggt tgtgggaaac attaacgcct 360
tcttgcaaca acaacaattg ctgccattct acccacagga tgtggcaaac attgtgcgct 420
tcttacaaca acagcaat 438

<210> 288

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C12

<400> 288

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cagacagtgt tattggtgaa ggatgtgtta ttaaaaactg caagataaac cattctgtag 120
ttggactccg atcttgcata tctgaagggtg ctatcataga ggacagttta ctaatgggtg 180
ccgactacta ttagacaaaa gcttggttaa aacttctttg cgaaaaaagt ggcattccta 240
ttggtattgg gaaaaattca tgccttaaga gaaccatcat tgaccagaat ggctcaattg 300
gagacaatgt taagatacct catgctgaca atgttcaaga agctgcaagg gagaccaaac 360
ggtaccttat tcaaagggtg aattgtcaca gtgatcaagg atgctttact ccctagtggg 420
acagttatat gaagtgaacg tgcgacatgc 450

<210> 289

<211> 260

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C2

<400> 289

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 ttaaatacata tatctttttat atattacact gaaattattt taaatgttct ttattttata 180
 acatatcaat tttcaaaact tttactttat ccaatttaat ctcataaatc caatttgatt 240
 tttatcaata ttgtttttta 260

<210> 290
 <211> 416
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-C4
 <400> 290

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 cacgcccggg cctggaaaaa gaggcaactc tgggggaata acggatttca ccttgtttac 180
 aggttactgc gtgacatgta gtattgtata attggagggt gtcaccatca ccacaaagca 240
 tatgttgatga tttgtcgatg gcgaggagat gaaacagggt taggggcgga gcagcaagga 300
 catgacagcc atgccgcac cgcgccaccg aggcgctgct aagaagccca tgtggatcat 360
 agtgctattg tctttggttt gtgttgcaact tatgggggcc tatgtctacc caccac 416

<210> 291
 <211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-C5
 <400> 291

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 acaacaacaa ctaccattca gccagctacc tgctgcctac cccagcaat ttcttccatt 120
 caaccaactg gcagcattga actctcctgc ttatttacag cagcaacaac tactaccatt 180
 cagccagcta gctgggtgta gccctgctac cttcttgata caaccacagt tgttgccgtt 240
 ctaccagcac gctgcgccta acgctggcac cctcttataa ctgcaacaat tgctgccatt 300

caaccaactt gctttgacaa acccagcagc gttctaccaa caacccatca ttggtggtgc 360
cctcttttag atttcttatg agttatagtt caataataaa gttttttgac tgatgtttgt 420
ggcttcccag aaata 435

<210> 292

<211> 318

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C6

<400> 292

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gaggcttcaa caggaggaag aactggctaa gcacatggct gaggaggagg atgacgactt 120
ctaaattagc tgccttttga gcaaccactt gcaattgtgg acttgttcga acgcctggtt 180
aaaccctgcc tctagctact cgagtcatgc aaaaacactg aactttgaaa ttcattccact 240
gtaatgtttt gttgatcagg ggtttcttta aattcaatac ttgagtttta aaaaaaata 300
caaccaacaa gctaagac 318

<210> 293

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C7

<400> 293

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gagctgagcg agcttgcggt gcttgagaga ccctgctgcc atggcttccc accaggacaa 180
ggctagctac caggccggcg agaccaaggc ccgcaccgag gagaagaccg ggcaggcggt 240
gggggcgacc aaggacacgg cgcagcacgc caaggaccgg gcggcggacg cggcggggca 300
cgcgggcggc aagggccagg acgccaagga ggccaccaag cagaaagcgt ccgacaccgg 360
cggctacctg ggaaagaaga ccgacgaggc caagcacaag gccggcgaga cgacggaggc 420
caccaagcag aaggccagcg a 441

<210> 294
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C8

<400> 294

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 gacgtgcaag aggatcgtga aggagctgcg ctcgtacgag aaggaggtgg agaaggaggc 180
 tgccaagacc gccgacatga aggagaaggc cgccgatccc tacgacctca aacagcagga 240
 gaatgttttg gctgagtcaa ggatgatggt ccagactgc cacaacgac ttgaaactgc 300
 actggctgac ttgaaagcaa cactggctga actgaaggag tcaaatgagc aaggtgccga 360
 gattggagaa gctgagagta caatcgaga agttgaagca gttgtcaagc cagcaggaga 420
 tt 422

<210> 295
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-C9

<400> 295

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 caatgctcac aagctcctat agcttccctt cttcccccggt acctctcacc aacggtgtct 180
 tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
 aactctgctt cttat 435

<210> 296

<211> 443
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-D1
 <400> 296

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 atatgttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
 gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
 agcaacatac ctttatcacc cttgggtggtt caacaatcgg cagccctatc tttgggtgcaa 300
 tcattggtac caaccattag ggcacagcaa cttgaacaac ttgggctacc cggatgatcaa 360
 ccaagtagct tctgccaaac cttcttcctt actctcagca acaacaattt cttccattca 420
 acccactgtc tacacttgac cct 443

<210> 297
 <211> 444
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-D10
 <400> 297

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 catcagttac cttgggtgca tttattggca caaaacatca aggcacaaca actacaacaa 120
 cttgtgctag caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa 180
 ctagctgcat tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta 240
 cctgctgcct acccccagca atttcttcca ttcaaccaac tggcagcatt gaaactctcc 300
 tgcttattta cagcagcaac aactactacc attcagccag ctagctggtg tgagccctgc 360
 taccttcttg atacaaccac agttgttgcc gttctaccag cacgctgcgc ctaacgctgg 420
 caccctctta caactgcaac aatt 444

<210> 298
 <211> 435
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-D11

<400> 298

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aagatcgccg cagccgccgc ggcggcgccg gcgctgtgct tcgcggccct ggtggccgtg 120

gccgtctgcc aaggcgaggt cgagcggcag aggcctcaggg acctgcagtg ctggcaggag 180

gtccaggaga gcccgctcga cgcgtgccgc caggctcctcg accggcagct aaccggcgcc 240

ggcgtcggcg gcccgttccg gtggggcacc gggctccgga tgcggtgctg ccagcagctc 300

caggacgtga gccgcgagtg ccgctgcgcc gccatccgga gcatggtcag gggctacgag 360

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ccgcagggag gagga 435

<210> 299

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-D12

<400> 299

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gccgagcggc ccggtgctct cggacgcgca ctaccagctc cgcctcgccg acgcgcgttt 180

tcgctcggcg ggcagcccggt cagcgtcagc gtgtactcgt cgtcgcaggg gcggacgacc 240

tgcattgtgct cgccgaccaa ccacccgggc tcgttcgggt gcatactgca caaggagcgc 300

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<210> 300

<211> 367

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-D2

<400> 300

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ctcagagctc cagacgcagt cggccgccgc agaccgggag tagccgacgc gccgtcactg 120
aatcctcaga tcacggctag ccgtaatcac gacactctgg tgactcccg cgagcagtgt 180
aacatttttc ttcaaccatg ggccaagaga aaaactcaca tcaacattgt ggtcattgga 240
catgtcgact ctggcaagtc gaccaccact ggncacctga tctacaagct cggcggtatt 300
gacaagcgtg tgattgagag gttcgagaaa gagggccgcg agatgaacaa gcggtcattc 360
aagtatg 367

<210> 301
<211> 440
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-046-Q1-K1-A8
<400> 301

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cctacttatg ctcttgggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc ccggtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca cccttgttcc tacaacaatc atcagcccta ttacatcagc tacctttggt 300
gcatttattg gcacaaaaca tcatggcaca acaactacaa caacttgtgc tagcaaacct 360
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tgcttcttat ttgcaacaac 440

<210> 302
<211> 341
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-046-Q1-K1-A9
<400> 302

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gatatgacca agacagtgcg aagtgcctaa tgaagcaagc tggcaggaaa catttaaagc 120
tctttggatt tccacccttc gtcttgtaca acgggctaga gaacctcttg aaggaccgat 180
tcctcatcta gatgcaaggt tatgcatgtt gttagctctt ataccattat caattgctgc 240
gaatcttcaa gaggaaagtg atatgtttgg agttgaatgg aacaaaattc ttccacatag 300
acaagggctt atatcatctc tccagaatct gatcccat t 341

<210> 303

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-B1

<400> 303

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tttcttgcatt ttagccaatt ggccgcactg aacctctctg cttatttcca gcagcaaata 120
ctactaccat ttggccagct agctacaaca agccccactt tctttttgaa acaacaacaa 180
ttgcttccgt tctaccagca gtttgtggct aaccccgcaa ccctcttaca actgcaacag 240
ttgctgccct ttgtccaact tgctttgaca aaccagcag ccttctacca acaacacatc 300
attggcggtg ccatctttta gattgcttat tagttgtaat tcaataatga agttttttgg 360
ctgatgtatg tggcctccta gaaataagaa gttacatttc caaattctaa tgtgctat 418

<210> 304

<211> 431

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-B10

<400> 304

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gagcggggcc gcggcgccgg ccccgccacc acgcgcgcgg ggtcggacgg ggagaggggg 120
gggggtcgtg gcgctggcgg cggctctgcc gtcggacgcg cagtggctgg agcggctgcc 180
ggagaagaag aagccgctgt acacgcacag cctgccgtgc atcgaggcgt ggctgcgcag 240
cctcgggttc acgcagtccc gcgaggaccc ccgcgcctg gtcgcccag aagccgctct 300

ggcacgcgcg tctcaggcct cgatgtcacc gaccttcaca tcaggtactt gaaaaagcgg 360
 cctggganat ctgacaagga tatggagaag aagggttagc tacgccctaa gcagagaaga 420
 catcgagaac g 431

<210> 305

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-B11

<400> 305

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 tgtagctaac accacaacca tgagcagcat catcactaca caacaacatc gtacactgat 180
 acatccacgt caacacacta tacataacta tcacttagac agcaagtaac taccaacaac 240
 atacatgcc aactatgctg cctcaacagc atcagccatt acaagaaaga catgttcaac 300
 aactacatcg tcaaccgcag catcaacaac tacatgcact actacagaaa caacatcatc 360
 atcattgtca acgccatcat caacattacc atcaatcaca atgtactgtg cagcagcacg 420
 aacagtacca tgagcaatac ca 442

<210> 306

<211> 380

<212> DNA

<213> Zea mays

<223> • Clone ID: LIB3061-046-Q1-K1-B12

<400> 306

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 gcgtacaggg agtcgctacc cagatgggag acgtgcccga gttgtacacc gtcgtgttcc 120
 aggagaggcc gctcaagggc tccacgctcg tcaccgaagg cgcgatgaca gaagggtcag 180
 acgagtgggc gatctacggt ggaactggag tgttcgcat ggagagaggc gtcataagga 240
 gaacgtttct tgccgacacg agcggcggga actccgacga gcttgccgtg gaggttctct 300
 gcccggtgtt ccgcccggcg gcgtttggct catcgctcgtc acagccagca gcaaaggaca 360

tcagctccac cgctcgtcgtc

380

<210> 307

<211> 365

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-B2

<400> 307

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aagagctatg agaaactcaa agaagtggga gagaaatttg aagttgtagc tgtatccttg 120

gacagtgaag agtcatcatt taatgagagt ttgcccagg atgccttggc ttgcaattcc 180

tcaaggtgac attaagtgtc agacgctggt tcgttacttt gagcttagtt ctcttccaac 240

actagttctg attggccctg atgggaagac actgaacaac aatgtcgncg acttaattga 300

cgaccatggt ttgaggcat gggagggcctt ncccttcagt gctgagaagc tggaaattct 360

tgctg 365

<210> 308

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-B4

<400> 308

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gcgagcaaga tatttttcct ctttatgctc cttgctcttt ctgcatgtgt tgctaacgcg 120

acaattttcc ctcaatgctc acaagctcct atagcttccc ttcttcccc ataccttcca 180

tcaatgatag cttcagtatg tgaaaaccca gctcttcagc cctataggct ccaacaagca 240

atcgagcaa gcaacatacc tttatcacc ttgttggttc aacaatcgcc agccctatct 300

ttggtgcagt cattggtaca aaccatcagg gcacagcagc tgcagcaact cgtgctacct 360

gtgatcaacc aagtagctct tgcaaaccctt tctccctact ctgagcaac 409

<210> 309

<211> 444
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-B5
 <400> 309

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 gttctggcag acgttccgtg gtactggcgc cgatcctttt ggtgcgccta caaagggttg 120
 gccttgggag gacggcacia attcgttggc catggctaag agaagaatga gagctcactt 180
 tgagttcatg gagaagctgg gggttgacaa atgggtgcttc catgataggg atattgcccc 240
 tgatgggaaa actctcgaag aaacaaatgc taacttggat gagatagttg agctggcaaa 300
 gcagctccag ggtgagacca atataaagcc attgtggggg actgcacagc tctttatgca 360
 tcctcgttac atgcacggag ctgctactag cccagagggt aaagtatatg catatgcggc 420
 tgcacaaagt aagaaagctt tgga 444

<210> 310
 <211> 439
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-B6
 <400> 310

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 ccttatgctc cttggctctt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttcccc gtacctctca ccaacgggtg cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg gcattctacc 240
 tttatcacc cttgttctcc aacaatcatc agccctatta cagcagttac ctttggtgca 300
 tttattggca cataacatca tggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgctactct cagcaacagc agtttctttc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caacaacaa 439

<210> 311
 <211> 450
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-B7
 <400> 311

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 cacaatgctc acaagctcct atagcttccc ttcttcccac gtacctctca ccaacagtgt 180
 cttcgggtatg tgaaaaccca attcttcaac cctacatgat ccaacaggca atctcagctg 240
 gcacttaacc tttatcacc ttcttctctc aacaatcctc agccctatta catcacttac 300
 ctttggtgca tttattggca cataacatca tggcacaaca actacaacaa cttgtgctat 360
 caaaccttgc tgcctactct cagtaacagc agttactttc attcaaccaa ctatctgcat 420
 tgaactctgc ttcttatttg caacaacaac 450

<210> 312
 <211> 390
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-B8
 <400> 312

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 attatcgatt acatctcata tgtaatctaa aagatggcac ctccaacgat gggttgctgc 120
 cacgacaagg cagggttcat caaagagaac tggctgtatg gtagcaattg ttgctgctgt 180
 aggaaggcag tgaccaatgg gtaatgcacc tacatacctg caacaacaat tgctgcaaca 240
 gattgtacca gctctgactc agctagctgt ggcaaaccct gctgcctact tgcaacagct 300
 gcttccattc aaccaactga ctgtgtcgaa ctctgctgcg tacctacaac agcgacaaca 360
 gctacttaat ccactaccaa tgcctaaccc 390

<210> 313
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-B9

<400> 313

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attggactat ggggtgggcc gggaggatcg gcacaggaca tcacgacgac agaggcacca 120
aggcgtctga acagcgtcac cattcgcgcc ggtattgccg acgactcgat cgagttcact 180
tacactggca aggacaggca gaggcgcaca gctgggcatg gggatggact tggcggcaat 240
gttcgaacga tcgatcttgg cgacaacgaa cacatcacgg aggtgtcagg aacgtacggc 300
acatttgaag gtgctactac cctaacctcg ctcaggttca tcaccagcac cagagcctga 360
ggcccatggg gcaccgagaa cgggacacgc ttgtgcatca ccgcgcacat cggcagcagc 420
gt 422

<210> 314

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A6

<400> 314

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gacttaactg caatgcctac cgtgatgtca gcttatgctg gcgcgttctt gctctatgtg 120
ctagcgcgaac aaatgcgttc attatttgac aatgctcact tgctcctagt gtcattatac 180
cacacttctt acgaccagtt acttcaatgt gctaaaaaca cctagttgag caagcctaca 240
tgctacaaca agcgttgcg gcgagcgtct tacatcaacc aagtaactaa ttgcatcatc 300
aatcctagta acatctaacc atacagacca tctgttcaca ccagccacaa cagtacctac 360
cataactgag ccaactatat gt 382

<210> 315

<211> 431

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-047-Q1-K1-A12

<400> 315

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gaatagtaga tgtaagttaa aatctaaatg caagttcaac catccgaagg atatggtgaa 120
 tgcattagga acaggaacaa acaatgaatc tctaattgct gatagcgctg tcttaccagt 180
 gaggccttct gaaccattt gtgtgttcta tgcaaaaaca ggcaaagca aatttgggtgc 240
 catttgcaag ttcaatcatc caaaagatat taagacatca cttttgattg caaaggaaac 300
 catatataca gcaacaactg atgcagcaga tgccccgacc gaggcgtgta acgcanaggg 360
 gcttcctata agacaagggtg aagtggattg ctcgttttat atgaagacag gcagctgcaa 420
 atatggttct a 431

<210> 316
 <211> 383
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-A2
 <400> 316

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 tggatcaaca tatctgcaaa gtccaatgta tggttgtctg gatgactctt ctggtttatt 120
 gcaaaatata ggagagaatg atccgacaac tagaactttt gttaaggttt acaagtcagg 180
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 actgggtcag atgttcggca ttaagggtca gttggacgac cctgatagat caggctggca 300
 gcttgtattt gtcgacaggg agaacgatgt gcttctcctt ggagacgacc cgtgggagtc 360
 atttgtgaat agtgtatggt aca 383

<210> 317
 <211> 437
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-A3
 <400> 317

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 ttaggaaggt attattgggc aaccacaaga agaggattca agattggaac aagatgaaga 120
 tcctataatt gaaatgactg aacagagggt acatgtaaca acaagaaggt ctactgcatc 180

aataatcaat caagataagg aagcaaagag gatgaagaag gattctttgg aaggacttgt 240
 tgggagatat ctagatctaa aatcaaaaca agttgaggat gaggttacac aaatggctaa 300
 aggaaaagaa tctgctcaag gcaatgactt ctccatcatg agatgcattt ctgttcttag 360
 atccatgaac gtgacaacag atgagaagat aaaagcagct gaagtgttcg acatacaaaa 420
 caacagagag accttta 437

<210> 318

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A4

<400> 318

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 tccactgcca tggcgtgacc gtggctgtca catggcctgg tgctgaagcc cggggctcgt 120
 ttggatctcg aagcagcagg cacagcgatt cagatggagc agtgaactct ggccgagaca 180
 tcccagctga gaacagccag cacaattctg acgcaggcac cagtagacat ccaggcgata 240
 gagcatccac atcctggcct gacgaaaagt taccgtcagc caagagcagc cctggtcact 300
 gctcgtccga tctttgcatt ggagctatgg atgtccagcg ccggtctgcg tgggggttgg 360
 tgattgtcac 370

<210> 319

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A5

<400> 319

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 ctaccaagat attagccctc cttgcgcttc ttgcctttt agtgagcgca acaaatgcgt 120
 tcattattcc acagtgtca cttgctccta gtgccattat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300

ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcc a tcaactgagcc 360
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<210> 320

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A6

<400> 320

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ttttccctcc ttatgtcctt tgctctttct acatgtgttg ctaacgcgac aattttccct 120
caatgtcac aagctcctat agcttccctt cttcccccac accttccatc aattatagct 180
tcagtatgtg aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc 240
aacatacctt tatcgccctt gttgtttcaa caatcaccag cctatcttt ggtgcagtca 300
ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaacctttc tccctactct cagcaacaac aatttcttcc attcaaccaa 420
ctgtctacac tgaaccct 438

<210> 321

<211> 61

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A7

<400> 321

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a 61

<210> 322

<211> 255

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A8

<400> 322

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 tgaactctgc tgcttatttg caacaacaat taccattcag ccagctagtt gctgactacc 180
 cccagcaatt tcttccattc aaccaactag cagcattgaa ctctgctgct tatttacagc 240
 agcaacaact actac 255

<210> 323

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A9

<400> 323

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 tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acatcttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagcttc ttccattcaa ccaactaggc tcattgaact ctgcttctta 420
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<210> 324

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B1

<400> 324

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 cccaatcatc ttccatgaca acttcatctt cacacaagac gatggtaaga tttcacaaaa 180
 gcgtgtggcc gatattcagc tggaagactt cctgcagtat gggctccaga acgagcaggg 240

gaaggttggc aagcccctgc ttcgcagatt gaaggatggc aggatggtga actgggacgt 300
gcaatcagag gacgctcttt gcacactcga agaagcggtc gacaaggcca atccaagggt 360
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<210> 325

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B10

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cctatagctt ccttctctcc cccatacctt ccatcaatga tagcttcagt atgtgaaaac 180
ccagctcttc aaccctatag gctccaacaa gcaatcgcag caagcaacat acctttatca 240
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gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct ggcaaacctt 360
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gctgctta 428

<210> 326

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B11

<400> 326

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tcctatagct tcccttcttt cccatacct ctcaccagcg gtgccttcaa tgtgtgaaac 180
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acccttgctc ctccaacaac cgtcagccct attacagcag ctacctttgg tccatttggt 300
ggcacaaaac atcacggcac agcagctaca acaacttggt ctagcaaacc ttgctgcata 360

ctctcagcaa catcagttgc ttacattcaa ccaactggct gcattgaact ctgctgctta 420
 tttgcaac 428

<210> 327
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 <212> DNA
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 <223> Clone ID: LIB3061-047-Q1-K1-B12
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 ggggtacctcc gattcctcgt cgacagcaag ctcgctcttc agacgctcga agccatcgtc 120
 gagcgcgccg ccgtcccgtg gttgggtgtg gtttcagatg cagagtttcg gaatactggg 180
 ctggagagat cagaggcgct gaaaaatgat ctggaatggt tcaggcaaca gggccacaca 240
 gttccagaac catcggtccc tggcaccaca tacgcttctc tactggaaga gctgtctgag 300
 gaggaccccc aggcctttat ctgccatttc tataacgtgt actttgctca tactgctgga 360
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 tacaagtgg 429

<210> 328
 <211> 418
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-B2
 <400> 328

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 atgcgagctg gcattctacc tttatcacc ttgttctctc aacaatcatc agccctatta 180
 cagcagttac ctttgggtgca tttattggca caaaacatca gggcacaaca actacaacaa 240
 cttgtgctag caaaccttgc tgcctactct cagcaacaac agtttcttcc attcaaccaa 300
 ctagctgcat tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta 360
 tctgctgcct acccccagca atttcttcca ttcaaccaac tgacagcttt gaactctt 418

<210> 329
 <211> 426
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-047-Q1-K1-A11

 <400> 329

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 tacgagctcg acgggtttca ctacgaaatc catgcgaccg acccattgta ggtggacatg 180
 gatgttctcc gggagcgggc tcactgaagc tggttctgct tttgaaggga cctgtggagg 240
 gccgtgaacc ttcaatcaga tgcgaatcta attgtcaacg atgaagcatc cgccgtgggtg 300
 cctgttaata agttcctgta agcgtatcat ttagtcgcta tgcttgatac tagctggcga 360
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 gatact 426

<210> 330
 <211> 315
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-046-Q1-K1-G7

 <400> 330

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 acctctcacc agcgggtgtct tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc 180
 aacaggcaat cgcagctggc atcttacctt tatcacctt gtctctccaa caatcatcag 240
 ccctattaca gcagttacct ttggtgcatt tattggcaca aaacattcag cacaacaact 300
 acaacaactt gtgct 315

<210> 331
 <211> 443
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G8

<400> 331

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cattactagc actaagactc tactaggtac cacatttaca ggttccaaat gctataccta 180
gtggacctgt cagagtcgta cgagtcattg tcaactgggct catacaattc tggtgaggaa 240
gggggggtgaa aggattttgg gccactgggt tcaactgctc caatactttt atttcttctt 300
ccatctcttc cttctctggg tctgacctg ctttgcctc tagtgcaccc tgctccatga 360
ggtctacctc ctttcagatt gcaaggagag cattgagaag gtaatgctcg tcacccaaat 420
gcatgaaagc ctcttctaga aag 443

<210> 332

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G9

<400> 332

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taagaggctt gccaaagaag tccatgcttt cttgggatca gaggccatca tcaagcagat 180
tccccgtctc cttgggtctg gtctcaacaa gggcaggcaa gttcccgacc ctggttactc 240
accaggaaat ccctcgagtc caaagtggaa cgagactaag gcaaccgtca agttccagct 300
caagaagggc ctttgcattg gtgttcgccg tcgcaacttg gcgatggagg agaagca 357

<210> 333

<211> 407

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-H1

<400> 333

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 gaagtccaag aagaaaactg aatcgtcctc gtctgtccaac cctgcgattg cctctgggtcc 180
 ggctaaggtc tggcaaccgg gtgtagatac actggaagat ggggaggagc tgcagtttga 240
 tcctcaggct tacaattatc tccgagggtt tggcattggc tggctctgct tgagttttga 300
 tgttgtgcgt gatcaacttg gactcgtccg ttcagagttc cctcatacat tctatgggtg 360
 tgctggaacg cangctgaga aagcttcatg gaactatatt ggcgttt 407

<210> 334

<211> 302

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-H10

<400> 334

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 acgtttcttga cacaaccaca attgttgccg ttctaccagc acgctgcgcc taacgctggc 120
 accctctttac aactgcaaca attgctgcca ttcaaccaac ttgctttgac aaaccaaca 180
 gcattctacc aacaacccat cattgggtggg gccctctttt agatttctta tgagttatag 240
 ttcaataata aagttttttg tctgatgttt gtggcttccc agaaataaga aagtacattt 300
 ct 302

<210> 335

<211> 347

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-H11

<400> 335

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 acaagctcct atagcttccc ttcttcccc gtacctctca ccaacgggtg cttcggtatg 180
 tgaaaacca attcttcaac cctacaggat ccaacaggca atcgcagctg gcatcttacc 240

tttatcacc ttgttctcc aacaatcatc agccctatta cagcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgc 347

<210> 336
 <211> 322
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-H12
 <400> 336

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 gctcacaagc tcttatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa 120
 tgtgtgaaac cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct 180
 taccattatc acccttggtc cttcaacaac cgtcagccct attacagcaa ttacctttgg 240
 tccatttggt ggcacaaaac cataaggcac aacaactaca acaacttggt ctagcaaacc 300
 ttgctgcata ctctcagcaa ca 322

<210> 337
 <211> 456
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-H2
 <400> 337

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 gtgctgatcg tggccctggc tctcctggcg ctcgctgcga gcgccgcctc cagtacaagc 120
 ggcggctgtg gctgccagac accaccgttt catctaccgc ctccgttcta tatgccgcct 180
 ccgttctatc tgccgccgca gcagcagccg cagccatggc aataccccac tcaaccaccg 240
 cagctaagcc cgtgccagca gttcggatcc tgcggcgctc gcagcgctcg cagcccgttc 300
 ctggggccagt gcgtcgagtt cctgaggcac cagtgcagcc cggcggcgac gccctacggc 360
 tgcgccagct gccaggcgct gcagcagcag tgctgccacc agatcaggca ggtggagccg 420
 ctgcaccggt accaggcgac atacggtgtg gtccctg 456

<210> 338

<211> 281
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-046-Q1-K1-H3

 <400> 338

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 tgctgggttg tctgaaatga ctggctctgc cgataccatt aaaanacagt gctaacgggc 120
 tcatatcacg tggaatgggt ccttgatgtg ttaaccaacc atggctaagg actggcataa 180
 caacattctt aaacacatca tgatacagca cagcgtgaac aatcctgtca caaacagatg 240
 agactctgaa cagatacact tataaacacgg actacagaag c 281

<210> 339
 <211> 441
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-046-Q1-K1-H4

 <400> 339

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 tccttatgct ccttggtctt tctgcaagtg ctgctaccgc aaccattttc ccacaatgct 120
 cacaagctcc tatagcttcc tttcttccc catacctctc accagcgggtg tcttcagtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagca ggcattctac 240
 ctttatcacc cttgttctc caacaaccgt cagccctatt acagcagtta cctttgggtg 300
 atttgttggtg aaaaaacatc aaggcacaac aactacaaca acttgtgcta ggaaaccttg 360
 ctgectactc tcagcaacag cagtttcttc cattcaacca actggctgca ttgaactctg 420
 ctgcttattt gcaacaacaa c 441

<210> 340
 <211> 391
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-046-Q1-K1-H5

<400> 340

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tgcaccagcg caagcttggg atccgcaaca agcagcatat ccacaacaat cagctgtttc 180

agttcctccc atagttgctg ggctcccacc acaacagcca ctattcccaa ttcagaatgt 240

gcctactcct atgacatcag cagctgctaa tgtacttcaa acatcgtttc ctatggcccc 300

tncaggagta ccttcacctn gtgcccctca tgtttcccag cttttgtttc ctgttaacac 360

tttagctgtc aatggagctg taaattcccc a 391

<210> 341

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-H6

<400> 341

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aagacattat ccttccttgc gcttcttgcc ctttttgtga gtgcaacaaa tgcgttcatt 120

attccacaat gtcacttgc tccgagtgcc attattccac agttcctccc tccagttact 180

tcaatgggct tcgaacaccc agctgtgcaa gcctataggg tacaacaagc gcttgcgggc 240

agcgtcttag aacaaccaat tgcccaatta caacaacaat ccttggcaca tctaaccata 300

caaaccatcg caacgcagca gcaacaagca ctgagccacc tagccgtggg gaaccctatc 360

gcctacttgc aacaacagct gcttgcattc aaccacttg ctttggcaaa cgtagctgca 420

taccaacaac aacaacagtt gcaac 445

<210> 342

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-H7

<400> 342

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ctttatgctc cttgggtcttt ctgcaagtgc tgctaccgca accattttcc cacaatgctc 120
 acaagctcct atagcttcct ttcttcccc atacctctca ccagcggcgt cttcagtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagcaa gcatcttacc 240
 tttatcacc ttgttcctac aacaaccgtc agccctatta cagcagatac ctttgggtgca 300
 ttcgttggca caaacatca aggcacaaca actacaacaa cttgtgctag gaaaccttgc 360
 tgactactct cagcaacagc agttacttgc attcaaccaa ctggctgcat tgaactctgc 420
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<210> 343

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-H8

<400> 343

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 gcctttgcag ctatccttac tgctgcgggt gcatatgacc atgcttcacc taagacacaa 120
 cagcactgtc gcaactgataa gtctttcctc atgtcatcgg caccatggat taaaattcca 180
 ttaccattcg aatgggggtcc ttcaatattc actgctggtc attcatttgg aatgatgggt 240
 gctgtacttg ttgcagtctt cgagtcaact ggagcacact ttgctactgc tcgtctagcg 300
 ggtgctacac cacctacagc ttatgtcctt agtcggagcg ttggcttgca aggtattgga 360
 atgtacttgg aggggatctt tagtgttcca gcaggttcat ctgtatcagt tgaaaacatt 420
 ggccctncttg ggctgac 437

<210> 344

<211> 354

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-H9

<400> 344

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 ctgccttatg ctcttgggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg 120

ctcacaagct cctatagctt cttttcttcc cccatacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt 240
acctttatca accttggttc ctccaacaac cgtcagcccc tattacagca gttacctttg 300
gtgcatttgg ttggcacaaa acatcaaagc acaacaacta caacaacttg tgct 354

<210> 345

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A1

<400> 345

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tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa cccaattctt 120
caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc accttggttc 180
ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt ggcacaaaac 240
atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta ctctcagcaa 300
cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta ttgcaacaa 360
caacaactac cattcagcca gctacctgct gcctaccccc agcaatttc 409

<210> 346

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-A10

<400> 346

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caaccaacta gcagcagtga actctgctgc ttatttacag cagcaacaac tactaccatt 120
cagccagcta gctgatgtga gccctgctgc cttcttgaca caacaacagt tgttgccgtt 180
ctacctgcac gctatgccta acgctggcac cctcttataa ctgcaacaat tgctgccatt 240
caaccaactt gctttgacaa actcaacagt gttctacca caaccatca ttggtggtgc 300
cctcttttag attgcttatg agttatagtt caataatgaa gttttttgga tgatgtttgt 360

ggcgtcccag aaataagaaa gtacatttct 390

<210> 347

<211> 104

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G6

<400> 347

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gccgaataat ggatgtgtga attctcacta attaagtaat gcat 104

<210> 348

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F11

<400> 348

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gatacgtctc accagcgggtg tcttcaatgt gtgaaacccc aattgttcaa ccctacagga 120

tccaacaggc aatcacaaca cgcattcttac cattatcacc cttgttcctc caacaaccgt 180

cagccctatt acagcagtta cctttggtcc atttggtggc acaaaacatc agggcacaac 240

aactacaaca actcgtgcta gcaaacctcg ctgcatactc tcagcaacat cagatgctta 300

cattcaacca actggctgcc tggaactctg ctgctcattt gcagcatcaa ttaccattc 359

<210> 349

<211> 116

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F12

<400> 349

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tttttgtctg atggtagtgg cttccagaa ataagaaagt acatttctag attctt 116

<210> 350
 <211> 314
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-046-Q1-K1-F2

<400> 350

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 cctccgatcc tcttgccctt cttcaattct gctacggcac cttttcccg aatgctcgca 120
 agctcctata gccttccttc tcccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaacccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
 atcaccttgg ttctacaac aatcatcagc cctattacaa cagntacctt tgggtgcattt 300
 attggcaca aaca 314

<210> 351
 <211> 293
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-046-Q1-K1-F3

<400> 351

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 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180
 gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgagca 240
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<210> 352
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-046-Q1-K1-F4

<400> 352

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 ctggacggcc ggaacatcac cgtcaacgag gccagtcctc gcggccgccc ttgaagcggc 360
 ggctgcccgt accgtggtgg ccgtggaggc ggcggctacg gcggtggctg gcgccgtgat 420
 ggcgg 425

<210> 353

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F5

<400> 353

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 ttggcacaaa acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc 240
 tactctcagc aacagcagtt tcttccattc aaccaactag ctgcattgaa ctctgcttct 300
 tatttgcaac aacaacaact accattcagc cagctatctg ctgcctacct ccagcaattt 360
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 ctaccattc 429

<210> 354

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F7

<400> 354

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct t 411

<210> 355

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-F8

<400> 355

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ccaagatact ttccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
ttttccctca atgctcacia gctcctatag cttcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcaacccta taggctcaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt ttcaacaatc gccagcccta tctttggtgc 300
agtcattggt acaaaccatc aaggcacagc agctgcagca actcgtgcta cctgtgatca 360
accaagtagc tctggcaaac ctttctccct actatcagca acaacaatnt cttccattca 420
accaactatc tacactg 437

<210> 356

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F9

<400> 356

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ggcggtgcg gctgccagcc accgcccgcg gtcatcttac cgccgccggt gcatctgcca 180
ccttcggttc acctgccacc tgcggtgcat ctgccaccgc cgggccacct gccgccgcca 240

gtccacctgc caccgccggt ccatgtgccg ccgccggttc atctgccgcc gccaccatgc 300
 cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgtgc 360
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 atcctg 426

<210> 357

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-G1

<400> 357

agcgactag caacgaccta acaccaatgg ctaccaagat attagccctc cttgcgcttc 60
 ttgccctttg agtgagcgca acaaatgcgt tcattattcc acagtgtca cttgtccta 120
 gtgccagtat tccacagttc ctcccaccag ttacttcaat gggcttcgaa catccagccg 180
 tgcaagccta caggctacaa ctagcgcttg cggcgagcgc cttacaacaa ccaattgccc 240
 aattgcaaca acaatccttg gcacatctaa cctacaaac cattgcaacg caacaacaac 300
 aacaacagtt tctgccatca ctgagccacc tagccgtggt gaacccttgt aactacttgc 360
 aacagcagct gcttgcatte aaccacttg ctntgcgaa cgtagctgca taccagcaac 420
 aacaacagct gcaacag 437

<210> 358

<211> 412

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-046-Q1-K1-G10

<400> 358

gtctcgccaa gtcgccatga tgcagcaacc ccgccgcag cagccgcagc cgggcatggc 60
 gccgnctncc cctccgcagg ctgctggcgg gcagccaccg cagtgggggtg ggatcccgcc 120
 gccgatggcg cagcagtagc gcgcaccgnc tccgcagcag cctccggcga tgtggggcca 180
 gcctccgcgg caggcgcact acgggcaggc accaaccctt cagcagtact acgccgcgcc 240

gcccgtgccg ggtgcaggcg ccagccgccc ccgctgcggc ggacgaggtc aggacgtct 300
ggatcgggga cctgcaatac tggatggacg agaactacgt cttcgggtgc ttttcgaaca 360
ctggggaggt tcaaaatgtg aagctcatcc gtgacaagaa ttcanggcag ct 412

<210> 359
<211> 329
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-046-Q1-K1-G11
<400> 359

agaaagcaca atagtggacc aacaatggca gctaaaatat ttgccttcc taagctcggg 60
ggggtttctg caagtgctgg tacggcgacc attttccac aatgctcaca agctcctata 120
gcttaccttc ttccccgta cctctacca acggtgtctt ccgtatgtga aaaccaatt 180
ctttaaccct acaggatcca acaggcaatc gcaactggca tcttaacttt atcaccttg 240
gtccctccaa caatcattca gccctattac agcagttacc ttggtgcat ctattggcac 300
anaacatcan ggcacaacaa ctacaacaa 329

<210> 360
<211> 425
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-046-Q1-K1-G12
<400> 360

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aggaatgaag cccaagaatc ttgaccatt ggtatagccg atgaacacat tgggtgctgtt 120
gtaggctcag caggaaggaa cataacagag atcattcagg ctagtgggtgc tcggatcaag 180
atatcagata ggggtgacta tatactctggg acatctgaca ggaaagtgc gattactgga 240
acacccgaag ctatccggac cgcggagtcc atgatcatgc agagggtgac agccagttca 300
gagaggtgat gagccccctt tgaaggagg gcgtaggcca ttgctgtgtc cgagcacagc 360
agcgtgtttg atgcangtta ggaggatgtg ggaactgctt tccttttatt tccccgcctt 420

ttttc

425

<210> 361

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G2

<400> 361

cggaagcggtg ggcggacgcg tgggcgcgcg caagcagagg cgccgcatcg ctcgtcagaa 60

gaaggctgtg aagatattcc cacggccaac tgctggccct cttcgcccca ttgtgcaatg 120

ccagactctc aagtacaaca tgaagtcgag ggctgggaga ggatttacct ttgaggagct 180

gaaggctgcc ggcattccaa agaagcttgc cccaaccatt ggcatttctg tggatcacca 240

ccgcaagaac aaatatctcg agggactgca ggccaatgtc cagaggctta agacgtacaa 300

ggccaagctg gttatcttcc caaggcgtgc tcgcaaggcc aatgccggcg actctactcc 360

ggaggagctt gccacggcca cccagggtcca gggcgactac atgcctatta ctcggtgtga 420

gaagcgctc 429

<210> 362

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G3

<400> 362

agcaagcaac atagaaagta gaatccatta gcaacaatag agcaacaatg gcgaccagga 60

tattttccct ctttatgtc cttgtcttt ctacatgtgt tgctaacgcy acaattttcc 120

ctcaatgtc acaagctcct atagcttccc ttcttcccc ataccttcca tcaattatag 180

cttcagtatg tgaaaaccca gctcttcaac catataggct tcaacaagca atcgagcaa 240

gcaacatacc tttatcgccc ttgtgtttc aacaatcacc agccctatct ttggtgcagt 300

cattggtaca aaccatcagg gcacaacagc tgcagcaact cgtgctacct gtgat 355

<210> 363

<211> 255

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G4

<400> 363

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 gcaagcttga cagcagcaca atacctacca tcaatgtgcg gcttgtacca ctcatactac 120
 caaaataatc catgcagcag caatgacatt agtgggtgtt gcaattgaag aattgtgtct 180
 acctagccgt tatactcata taacgggtgtt aagcaataaa gtaccataca ttatgatgtt 240
 tgtactaaac aaaaa 255

<210> 364
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-G5

<400> 364

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 tcaacaagat tttggttggc aacaaggccg atatggacga aagcaagagg gctgtaccta 120
 ctgcaaaagg acaagcactt gctgatgagt acgggatcaa gttttttgaa acgagtgcc 180
 agacaaacct gaatgtggag caagtgtttt tctccatcgc acgtgacatc aagcagaggc 240
 ttgcggagac tgattcaaag ccagaggaca aggcaatcaa aattaacaag ccagaccagg 300
 gttccgaggc accagctgcc cagcgatctg cttgctgcgg ctcataagca gatgcacgat 360
 ggccatagcc tttggttatt tgacattatt tatttctcgc ttggctgtta taggaaggat 420
 ttgaaag 427

<210> 365
 <211> 423
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-F10

<400> 365

atccctcctg cgcttctggc cctttttgca agcgcaacaa atgcgtccat tattccgcaa 60

tgctcacttg ctctagttc cattattcca cagttcctcc caccagttac ttcaatggcc 120
 ttcgaacacc cagctgtgca agcctatagg ctacaacaag cgattgcggc gagcgtctta 180
 caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaacaat acaaaccatc 240
 gcaacgcaac agcaacaaca gttcctacca gcactgagcc acctagccat ggtgaaccct 300
 gtcgcctact tgcaacagca gctgcttgca tccaaccac ttgctctaac caacgtaagt 360
 tgcaaccaag caccacaaca actgcaacag tttctgccag cgcttagtca actagccatg 420
 gtg 423

<210> 366

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C7

<400> 366

gcccggtgcca gctgcaggga acctgcggcg ttggcagcac cccgatactg ggccagtgcg 60
 tcgagtttct gaggcacag tgcagccga cggcgacgcc ctactgctcg cctcagtgcc 120
 agtcgttgcg gcagcagtg tgcagcagc tcaggcaggt ggagccgcag caccggtacc 180
 aggcgatctt cggcttggtc ctccagtcca tcctgcagca gcagccgcaa agcggccagg 240
 tcgcggggct gttggcgggc cagatagcgc agcaactgac ggcgatgtgc ggctgcagc 300
 agccgactcc atgcccctac gctgctgccg gcggtgtccc cactgaaga aactatgtgc 360
 tgtagtatag ccgctggcta gctagctagt tgagtcattt agcggcgatg attgagtaat 420
 aatgtgtcac gcac 435

<210> 367

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C8

<400> 367

aagaaatcca tcgagaggcc gtcgacagg gaattaatgg cgtcgtcgtc tagcaggggc 60
 caccgccgcc tcatactcgc agccgccgct ctgctctccg tgctcgcggc tgccagcgcc 120

agcgccggga cctcctgcgt gccggggtgg gccatcccgc acaacccgct cccgagctgc 180
cgctgggtacg tgaccagccg gacctgcggc atcggggccg gccttcccgt ggccggagct 240
gaagaggaga tgctgccggg agctggcgga catcccggcg tactgccggt gcacggcgct 300
gagcatcctc atggacggcg cgatcccgcc gggcccggac gcgcagctgg agggccgcct 360
agaggacctg ccgggctgcc cgcgggaggt gcagagggga t 401

<210> 368

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C9

<400> 368

cccacgcgtc cggcaacata gaaagcacia tagtgtacca acaatggcgg ccaaagagt 60
ttgctgtctt atgctccttg gtatttctgc aagtgtgct acggcgacca ttttcccgca 120
atgctcacia gtcctatag ctcccttct tccccgtac ctctcaccag cgggtgtctt 180
ggtatgtgaa aaccaattc ttcaacccta caggatcaa caggcaatcg cagctggcat 240
cttaccttta tcacccttgt tctccaaca atcatcagcc ctattacagc agttaccttt 300
ggtgcattta ttggcaciaa acatcagggc acaacaacta caacaacttg tgctagcaaa 360
ccttgtgtcc tactctcagc aacagcagtt tcttccattc aaccaactag ctgcattg 418

<210> 369

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D1

<400> 369

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caagctcgtg gacaagctgg aggccgagga taaggaaaag gtggaggagg ccttcaagga 120
tgctctggag tgtctggacg acaaccagtc cgccgagaag gacgactacc aagagaagct 180
tatggatgtg gaggccgggt gcaaccacat tgtgtctacc gtgtaccact ggtctaacag 240
tgcccctggc cttgacactg acagcgggtg tgacgacgac cactactagc tgtagatggt 300

tgtagatggg actggtcacg tgaattgcc a tatgccgaac cacaattagt aacgggggtt 360
atcggatgac aataacttatt actaatcttg gtgctgctct 400

<210> 370

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D10

<400> 370

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aactctgctg cttatttgca gcagcaacaa ctactaccat tcagccagct agctgctgac 120
taccaccggc aatatcttac attcaaccaa ctggcagcat tgaactctca tgcttatgta 180
caacaacaac aactactacc attcagccag ctagctgctg tgagccctgc tgccttcttg 240
acacagcaac atttgctgcc gttctacctg cacactgogc ctaacgttgg caccctctta 300
caactgcaac aattgctgcc attcgaccaa cttgctttga caaaccagc agtggttctac 360
caacaacca tcattgggtg tgccatcttt tagattgctt atgagttat 409

<210> 371

<211> 262

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D11

<400> 371

tgagaccaac tagcaacata gaaagcacia tagtgtacca acaatggcag ccaaaatatt 60
ttgcgtcctt atgctccttg gtctttctgc aagtgttgct accgcaacca ttttccaca 120
atgctcacia gctcctatag cttcccttct tccccatac ctctcaccag cgggtgtctt 180
aatgtgtgaa aacccaattg ttcaacccta caggatccaa caggcaatcg caacaggcat 240
cttaccatta tcacccttgt tc 262

<210> 372

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D12

<400> 372

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agttggactc cgatcttgca tatctgaagg tgctatcata gaggacagtt tactaatggg 120
tgccggactac tatgagacag aagctgataa aaaactcctt gccgaaaaag gtggcattcc 180
tattggtatt gggaaaaatt catgcatcag gagagcaatc attgacaaga atgctcgaat 240
tggagacaat gttaagatac tcaatgctga caatgttcaa gaagctgcaa gggagacaga 300
cgggtacttc atcaaagggtg gaattgtcac agtgatcaag gatgctttac tccctagtgg 360
aacagttata tgaagtgaac gtgcgacatg cagctgtgtg tctcgacatt c 411

<210> 373

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D2

<400> 373

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cctgccgctg ccagagcgaa ggaccctgtc tttgccagaa atgccctgg gcaaccaagc 120
taatggcgac tttgtttgaa caaaaagtag cagacttttt tgcgggggttc gatttctctc 180
tctctctttt ttcttttgta attgtaacct tttttttacc tttctggact ggtataaaaag 240
taagcctgga ctgcgcagtt tatgggtgca atatggagga gtatctttgt gtagaatatt 300
ctggctggta ctgcgcttcg gactttgtat ataaagaaga actattatta gtctggttgt 360
ttggattt 368

<210> 374

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-045-Q1-K1-D3

<400> 374

gcaaagcggc agtgcgtaga gaggatcgtc gaacagaaca gcatgaagat ggatcatcggt 60
ctcgtcgtgt gcctggctct gtcagctgcc agcgctcttg caatgcagat gccctgcccc 120
tgcgcggggc tgcagggtct gtacggcgct ggcgcgggcc tgacgacgat gatgggcgcc 180
ggcgggctgt acccctacgc ggagtacctg aggcagccgc agtgcagccc gctggcggcg 240
gcgccctact acgccgggtg tgggcagacg agcgccatgt accagccgct ccggcaacag 300
tgctgccagc agcagatgag gatgatggac gtgcagtcg tcgcgcagca gctgcagatg 360
atgatgcagc ttgagcgtgc cgctgccgnc agcagcagcc tgtacgagcc agctctgatg 420
cagcagcagc agcagct 437

<210> 375
<211> 356
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-045-Q1-K1-D4
<400> 375

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gttcatgcgt cttgcgcctt ccctagctat ataacctgcc atcgctctca aaatccatat 120
gcaatcacc taatcgcgac tttatttcat caacaactct cacactcttc tgacgactat 180
gatactctct ctctatctgt acccctacaa ttagtacctt atgcatacct atctcaacct 240
cgttacaact acacccta atcgcacagt tatgcataca atcgccatga accactctct 300
gcagaatcat ttctatcata ctgagattac gactatggac atacagaaca actatc 356

<210> 376
<211> 432
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-045-Q1-K1-D5
<400> 376

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attgagccac attacattca ccaagcaatc tacaacatgg ttcaatccat aatgcaggag 120
gagcaacaac aacaaccatg tgagttatgt ggatctcaac aagctactca aagtgcggtg 180

gcaatcttga cagcagcaca atacctacca tcaatgtgcg gcttgtacca ctcatactac 240
ctaaataatg catgcagcag caatgacatt agtgggtgttt gcaattgaag aattgcgtct 300
acctagccga tatactcata taacggagtt aagcaataaa gtaccataca ttatgatgta 360
tgtactaaca aaatagccgt ggtgtacctt gaaacatcct tgtaacttca gctgcttgca 420
ttatatgcac tt 432

<210> 377

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D6

<400> 377

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gatgttgagt accgctgctt cgtcggcggc ctgcctggg ccacggacga cactccctc 120
cacaacgcct tcagcaccta cggcgaggtc ctcgagtcca agatcatcct cgatcgggag 180
acgcagaggt cccgcggctt cggcttcgtc accttctcca cggaggaggc gatgcggaac 240
gccatcgagg gcatgaacgg caaggagctg gacggccgca acatcacctt caacgaggcc 300
cagtcgccg ggcggccgtg aggcggcggc ggcggcgggt acggtggtgg ccgtggaggc 360
ggcggtacg gcggtggcgg gcgccgtgat ggcggcggcg gctacggcgg tggcggcggc 420
taccctggtt ggc 433

<210> 378

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-D7

<400> 378

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gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
tcctatagct tcccttcttc ccccgtagct ctaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240

acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 420
tttgcaacaa caac 434

<210> 379
<211> 442
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-045-Q1-K1-D8
<400> 379

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agcttccttt cttcccccat acctctcacc agcgggtgtct tcagtatgtg aaaaccaat 120
tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc atcttacctt tatcaccctt 180
gttctctcaa caaccgtcag ccttattaca gcagttacct ttggtgcatt tgttggcaca 240
aaacatcaag gcacaacaac tacaacaact tgtgctagga aaccttgctg cctactctca 300
gcaacagcag tttcttccat tcaaccaact ggctgcattg aactctgctg cttatttgca 360
acaccaacta ccattcagtc agctagctgc tgctacccc cagcaatttc ttccattcaa 420
ccaactggca gcattgaact ct 442

<210> 380
<211> 437
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-045-Q1-K1-E1
<400> 380

accaactagc aacatagaaa gcacaatagt gtaccaacaa tggcagccaa aatattttgc 60
ctcctgatgc tccttgggtc ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta 180
tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcagc tggcatctta 240
cctttatcac ccttggtcct ccaacaatca tcagccctat tacaacagtt acctttggtg 300

catttattgg cacaaaacat cagggcacia caactacaac aacttgtgct agcaaacttt 360
gctgcctact ctcagcaaca gcagtttctt ccattcaacc aactagggttc attgaactct 420
gcttcttatt tgcaaca 437

<210> 381
<211> 406
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-045-Q1-K1-C6
<400> 381

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cctccccag cttcatatcc ccttcaata tcttatgcac agtttgcaac cccccagtca 120
attcagcata gcaattctgt ggcttcaccg agcaatggc agattgcaaa tcaagcacia 180
atgaatgtga atcaacaacc aaaagattct tcggcagcat ctagcagacc atactacata 240
cctgataatc tattcagtga tttgatcgat gcanaaagtt ttggcgggtgg aaacaagatg 300
ggcggggcca ctacaatggg tagctcaaat ggtggccagc ctatgattgg tggaaagaaa 360
tagggttatt tgtctatata tatacagctg atggtgatcg gtagct 406

<210> 382
<211> 252
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-045-Q1-K1-B2
<400> 382

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ctgctcattt ttttctggc aaatcactcg gtgtattaaa aactttaag ctatgtaatt 120
gaaagactaa tcaacacgca gttaaccat gagcaagctt tgtttaatta ttacagtcta 180
cgagtactta ttcaggcaga tcactctgag gttgtgcta ctgttgggcc cttccagctt 240
gacctgttg gt 252

<210> 383
<211> 403

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-045-Q1-K1-B3
 <400> 383

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 ccgccgggtcc acctgccacc gccgggtccat gtgccgccgc cggttcatct gccgccgcca 120
 ccatgccact acctactca accgccccgg cctcagcctc atccccagcc acacctatgc 180
 ccgtgccaac agccgcatcc aagcccggtgc cagctgcagg gaacctgcgg cgttggcagc 240
 accccgatcc tgggccagtgc cgtcaggttc ctgaggcatc agtgcagccc gacggcgacg 300
 ccctactgct cgcctcagtgc ccagtcgttg cggcagcagt gttgccagca gctcaggcag 360
 gtggagccgc agcaccggta ccaggcgatc ttcggcttgg tcc 403

<210> 384
 <211> 446
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-045-Q1-K1-B4
 <400> 384

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 caggcgagga tcggagttgc tctgaattga ctgaaccatg gcggcgacaa tggcagtgac 120
 gacgatgggtg accaggagca aggagagctg gtcgtcattg cagggtcccg cgggtggcatt 180
 cccttgggaag ccacgaggcg gtggcaagac cggcggcctc gagttccctc gccgggcat 240
 gttcgccagc gtcggcctca acgtgtgccc gggcgctccg gcggggcgcg acccgcgga 300
 gcccgatccc aaggctgtac gggcccncg acaactgcga catcgcgcg cagcttggcg 360
 ccgncgttcc cgggcagcag gccgncgtgg aggcggagga agaggcagcg aagaggagga 420
 agcagaaagg cggcggcagc aagaag 446

<210> 385
 <211> 433
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-045-Q1-K1-B5

<400> 385

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taacaacaat ggctaccaag atattatccc tcttgcgct tcttgcgctt tttgcgagcg 120
caacaaatgc gttcattatt ccacaatgct cacttgctcc aagttccatt attacacagt 180
tcttcccacc agttacttca atgggcttcg aacaccagc tgtgcaagcc tataggctac 240
aacaagcaat tgcggcgagc gtcttacaac aaccaatttc ccagttgcaa caacaatcct 300
tggcacatct aacaatacaa accatcgcaa cgcaacagca acaacaattc ctaccagcac 360
tgagccacct agccatgggtg aaccctgccg nctacttgca acagcagttg cttgcatcaa 420
acccacttgc tct 433

<210> 386
<211> 422
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B6

<400> 386

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cagatcagat caaagcggaa caccaactcc tctctctcgt agggtttggg gtgttcacct 120
cacctctcgc ggcgacggcg aagccttctc ttctcttcgc tccgctccgc tccgctcggg 180
gtttcagcca tgatgtcgcg gtcgtacacc aacctgctcg acctcgcgga gggcaacttc 240
gcggcgctgg gcccggccgc cggcgccggc ggccggcgggc ggcagaggca ggggtcgttc 300
gggctgagggc ggatgtcgcg ggtgatgacg gtgccgggga cgctctcgga gctcgacggc 360
gaggacgagt cggagccggc ggccaccagc agcgtcgcct tcgacgcgcc ctcgtccgtg 420
gc 422

<210> 387
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B7

<400> 387

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aacctgctg cttatttgca gcaacaacta ttaccattca gccagctagc tactgcctac 120
tctcatcaac aacaacttct tccatttaac caattggccg cactgaacct cgctgcttat 180
ttgcagcagc aaatattact accatttagc cagctagctg cagcaagccg tgcttccttc 240
ttgacacagc aacagttgct gcctttctac cagcagtttg cggctaacct cgcaaccctc 300
ttacaactac aacaattggt gccctttgtc caacttgctt tgacaaacct agcagcctcc 360
taccaacaac acatcattgg tgggtgccctc ttttagattg cttattagtt gtaattcaat 420
aataaagttt ttg 434

<210> 388

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-045-Q1-K1-B8

<400> 388

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tgatattgct gcatgccttc aagcacgtca gcctctgtgg cttatatctg aggcacatcaac 120
tgcttcacgc gcattactat gaggggttaa ttatgctcca atttctacaa gttggccgat 180
gaaatttcat tagttggggg tattcaaaag tattgtctga ttcttagaag aacacaatag 240
cgggctgatg ctttggtcac tataactgag ttctttcaca ggaattaatc agatgctcct 300
ggttaactgg gatgcgcgtt ttgaagcttg ttactgcat cgtatgtttc ttggccaata 360
tcttactcta cttttcactc gtgtgaaatt tccaagtgcg tgctcctact tcaatattgn 420
gaatctttg 429

<210> 389

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B9

<400> 389

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ttgctctttc tacatgagtt gctaacgcga catttttccc tcaatgctca cacgctccta 120
taactaccct tggtttccca taccttacac caattatagc ttcagtatgt gaaaaccag 180
ctcttcaacc atataggcta caccaagcaa tctcagcacg caacatacct ttatcgctct 240
tgctgtttca acattcacca gccctatctt cggagcactc attggcacia accatcaggg 300
cacaacagct gcaacaactc gtgctacctg tgaacaacca agtatctctg gcaaactttt 360
ctcactactc tcagcaacaa caatttttta catacaacca actgtctac 409

<210> 390

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C10

<400> 390

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aaacttggcc ctactgagc agccttcaa gtttgatttt tatgatcaa aaacaccttt 120
cttcaactgca ccccgatgct tgcctccgac gcaattggac aagtgcaaga tgaaagatgc 180
atztatctca gatgggttgc tactgagaga atgcaacatc gagcattctg tgattggagt 240
ctgctcacgt gtcagctctg gatgtgaact caaggactcc gtgatgatgg gagcggacac 300
ctatgaaact gaagaagaag cttcaaagct actgttagct gggaagggtcc cagttggaat 360
aggaaggaac acaaagataa ggaactgtat cattgacatg aatgctaaga ttgg 414

<210> 391

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C11

<400> 391

tgacaataat gtgaccatca attatgaaga atttatcgct gcaactgtgc ctcttagcga 60
aatagaacgt gaggagcacc tgatggcagc ttttacctac ttcgacaaag atggaagtgg 120

ttatatcaca gttgacaagc tgcaacgagc ttgtggagaa catgacatgg atgacacttt 180
ccttgaagag ataatttttag aagttgacca aaacaatgac ggtcagattg actacgccga 240
attcgtagcc atgatgcaag gcagcaaagt tggacttggg tggcaacaaa tggaaaccac 300
tctgaatgta accttgagag atgcacctca agtacactgt cactgatgcg ctgcgccatgt 360
acagattttg ctctcttctc gtgttcatcg tttctccaca cgacctgaga gttccg 416

<210> 392

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C12

<400> 392

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ctccttggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg ctccacaagct 120
cctatagctt cttttcttcc cccatacctc tcaccagcgg tgtcttcagt atgtgaaaac 180
ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt acctttatca 240
cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggg gcatttggtg 300
gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct tgctgcctac 360
tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc tgctg 415

<210> 393

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C2

<400> 393

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ccatcgtcgc cgtcatcatg gccgggataa aggaccagaa ggacccccgt gacaagggtcc 120
accacggcgg atggatggcc aagatcttct gctgggtcgt cattgtcttc ctcatgttct 180
tcgtgccccaa cggcgtcgtc agcttctatg aatctatatc caagtttggc tctgggctgt 240
tccttctcgt tcaggttggt ctgctgttgg attttgtgca cggatggaat gagaactggg 300

tcgccaagga tgagcagttc tggtagatgg ctctgttggt tgtctcgggt gtctgtttaca 360
 ttgccacggt ctgtttctcg ggtcttctat ttactgggt cactccatct ggacatgact 420
 g 421

<210> 394

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C3

<400> 394

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 agtaacttca tgcttgcata tctccttaca tttaggttga atttcctatc aatcaaccgg 180
 tttgagagga aaaagaatct tgatcttgcc atttcagcat ttgctttgct ccgttctgct 240
 gcttgggacta tacctgggtga tgctctacaa gaagcaacat taacagtggc aggtggctat 300
 gataagcgtc tcaaggaaaa tgttgaatac cttgaggaac tcaaaagact cgcattgacg 360
 gaagggggtt ctggacaggt taaatttggt acatcttgct caacatctga aagaaacgag 420
 cttctctcca act 433

<210> 395

<211> 374

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C4

<400> 395

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 accattcgcg tctttaatac atctgtgatt aatgaccaga ttcaccaacc tcacacttat 120
 caccaccttc attctatcat ctatatctac atctaggtcg aaattgctat ccttaaactc 180
 ttctttacac aaaacataat cttcatctat caatctatat tcaactttgc tctgatctgc 240
 tccttcacta taccttggtta tgctgtacaa taatctacac taatagaatc aaaacctcta 300
 tcatccaagg attaacagat atgttacata cctctattaa ctgactcgac tgtcttttac 360

attaacactt tctg

374

<210> 396

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-C5

<400> 396

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gaggggtgttg ctcggtgccc tcgctctcct ggctctcgct gcgagcgcca cctccacgca 120
tacaagcggc ggctgcggct gccagccacc gccgcgggtt catctaccgc cgccggtgca 180
tctgccacct ccggttcacc tgccacctcc ggtgcatctc ccaccgccgg tccacctgcc 240
gccgcgggtc cacctgccac cgccggtcca tgtgccgccg ccggttcata tgccgccgcc 300
accatgccac taccctactc aaccgccccg gcctcagcct catccccagc cacacccatg 360
cccgtgccaa cagccgcata caagcccgtg ccagctgcag ggaacctgcg gcgttggcag 420
caccgccatc ct 432

<210> 397

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B12

<400> 397

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tctaagatgt cgtcatctga acggcggtag cttcgaaaga gattccgggc agagcttgat 120
tcggtgcggg atctcctcaa gaagccagag tttgcagccc ctgttcctct caatcgggca 180
cctgctttgt catcctcagc tgcacctcga gctaagaagc cacagaagtc tcagcgtggt 240
gggaccaatg ttatacgtgg tgcaaaggga cgattcttgc ctacaaaacc gcggccggag 300
acttccactg tgttatctga agctgcagcg ttttaagcagt gtgaagctat tttgaagaag 360
cttatgactc aaaagtatag tcatatattc aatgttccag ttgatattgt ga 412

<210> 398

<211> 419
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-044-Q1-K1-H9

<400> 398

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 agatatgata cctccttgcg cttcttgccg tttttgagag cgcaacaaat gcgttcatta 120
 ttccacaatg ctacttggct ccaagttcca ttattacaca gttcctccca ccagttactt 180
 caatgggctt cgaacaccca gctgtgcaag cctataggct acaacaagca attgcggcga 240
 gcgtcttaca acaaccaatt tcccagttgc aacaacaatc cttggcacat ctaacaatac 300
 aaaccatcgc aacgcaacag caacaacaat tctaccagc actgagccac ctgacctgag 360
 tgaaccctgc cgnctacttg caacagcagt tgcttgcatc aaaccactt gctctggca 419

<210> 399
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A1

<400> 399

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 aacactgcgg aagcaaatcc agcagtgcaa ttggcaagtc gttaaatgtaa caactcctgc 120
 aaattatttc catgttctgc gtcgccagat acaccgggac tttaggaaac ctttgattgt 180
 gatgtcccca aagaacctcc ttgccacaa ggactgcaag tcgaacttat ctgaatttga 240
 tgatcttgcg ggccaccctg gattcgacaa gcaagggaca cgcttcaagc ggctcattaa 300
 agaccagaat aatcacaagg acctcgagga gggaattaac cgtctagttc tttgctctgg 360
 aaaggtgtac tacgaactgg atgaagaaag aaggaagacg gagcgactg atgttgctat 420
 atgtagagtt g 431

<210> 400
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A10

<400> 400

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aggaggcaag agagatcatt cttaaagaca tgcccaacgc taacattcaa gttctaccgg 180
ttggctcgct tgtgacccaa gactttcgcc ctgatcgtgt tcgcatcttc gttgatattg 240
ttgcccagac tccaacagtt ggctgacaag gatatgcctt atctataggc caaataaaca 300
aagcctactt ttatgtatca tggctaataa atcctacatt tcttggttat ccttgattgg 360
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<210> 401

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A11

<400> 401

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atatgtgggt accaaatggc ctgcaatggt tagcggagtt gaaaagtact tagaggagaa 120
accgtggaaa ttcagtaaag cgaatgcaac agagaaggcg atggttgctg gtttgggagg 180
actcaatctc tttggtgtca tcattcttgg aaacttggtg aagcatatga cagtgcacc 240
tggtggacta atctcatttg ccgcacagtt atatcctttg cttcagatat acgctggctc 300
cttttttgca atacctttgt ttagatgggt tctgctacgc aagaccatca atggcattaa 360
aaagaggaat aaggccagag aacagagagc t 391

<210> 402

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A12

<400> 402

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accacagttg ttgccgttct accagcacgc tgcgcctaac gctggcaccc tcttacaact 120
gcaacaattg ctgccattca accaacttgc tttgacaaac ccagcagcgt tctaccaaca 180
acccatcatt ggtggtgccc tcttttagat ttcttatgag ttatagttca ataataaagt 240
tttttgtctg atgtttgtgg cttcccagaa ataagaaagt acatttctaa aaaaaaata 300
aaatataaaa atacatatgg aaaaaaaaaa aaaagataca caaaaacaac aataaaatta 360
aaaaaaata ataaagacaa aaaacaaaag agctca 396

<210> 403

<211> 347

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-045-Q1-K1-A2

<400> 403

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gccatcttcc tctgtggcga cagctcagac aaccgagac caccaagata caatcctgcc 180
gttagtgccg ctatagcagc tgggtggcga gggggctgtg gtggcggtgg cgggtggtggt 240
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ggatgctaga gttcatcgga tccgatgcac cagcgggcag cggcatc 347

<210> 404

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A3

<400> 404

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gccgcccggc gccggcgccg cctgacgacc cgggtcccga gcctcccgac ccccgccgcc 180
cccgcgcgcg ccgcccgcgc ggctccctct cctcctctca ccagaagccg gagcatgatg 240

ttccagggca ccaaagggat cacgctgctg cagccaagcc tccggggcca gtcggaaagg 300
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ggctcggcag cgtg 434

<210> 405
<211> 452
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-045-Q1-K1-A4
<400> 405

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc ttggcaacct ttctcctac tctcaggcac cacattttct tccattcaac 420
caactgtcta cactgaaccc tgctgcttat tt 452

<210> 406
<211> 454
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-045-Q1-K1-A5
<400> 406

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gatcagacag atgagaggca aagaattgag gatgcagggg gctttgttat gtgggctggg 180
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ccgtatgttg ttgctgaccc tgaaatcaag gaggaggtgg tcgacagctc cctcgaattc 300
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 gtcaagccta tccaggaccc ccaggaagca gcaaacaagc ttctcgaaga agcttcccga 420
 aggggaagct ccgataacat cacagntatc atcg 454

<210> 407

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A6

<400> 407

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 cagggaaacg tcaagcagtt gacagattaa acaaacagca acaccacaaa ccatataaaa 180
 gtatgggttaa tgaaccagca tcagatttta aagaaacagc atcagataac gaaacgggtca 240
 ggtagaaacc agacacaacg gacttaacag ggtaatccat gagttcaaca gggcacaatg 300
 gtcttcaaaa gtccattcat acttgggact tgactgggtta tttaggtgat aacgatttgg 360
 ggtccggcac attcaccagt ttggccagct tttagccttg cttctagccc atggcaaact 420
 tc 422

<210> 408

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A7

<400> 408

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 aatgctcact tgctccaagt tccattatta cacagtttct cccaccagtt acttcaatgg 180
 gcttcgaaca ccagctgtg caagcctata ggctacaaca agcaattgcy gcgagcgtct 240
 tacaacaacc aatttcccag ttgcaacaac aatccttggc acatctaaca atacaaacca 300

tcgcaacgca acagcaacaa caattcctac cagcactgag ccacctagcc atggtgaacc 360
 ctgccgccta cttgcaacag cagttgcttg catcaaacc acttgctctg gcaaacgtag 420
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<210> 409

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-A9

<400> 409

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 taatgctcgc aagctcctat aacttaactt attgccccgt acctatcacc atcggtgtct 180
 tcagtatgtg aaaactacaa ttcttcaacc gatacaggat ccaacaggca atcgagctg 240
 gcatcttacc tttatcacc tggttcctcc aacaatcacc agccctatta caacagttac 300
 ctttggtgca cttattgtca caaaacatga tggcacagca tctacaacaa cttgtgctag 360
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<210> 410

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B1

<400> 410

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 ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
 agcttcaata tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgagc 240
 aagcaacata cctttatcgc ccttggtgtt tcaacaatcg ccagocctat ctttggtgca 300
 gtcattggta caaaccatca gggcacaaca gctgcagcaa ctogtgctac ctctgatcaa 360
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438

<210> 411

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B10

<400> 411

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cctactttatg ctgcttgggg gctctacacc tgcttctact acagatcatt ttcccacaat 120

gctcacaagc tcctatagct tcccttcata acctcattcc tctcacctac cgtatcttat 180

atctatgaaa acccaattat tcactcttat aagacccatc tctcaatcac agcatctatc 240

taacctacat aaccctttct cctcctacaa tcactctacc tatcacagca cttacattac 300

atgcacttat tgtcacatac cttcatgact aatcttctac aacaactctt gctacctcac 360

accgctgaac tactctcagc ctctgtgtgt tatttcatt 399

<210> 412

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-B11

<400> 412

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agggtttcgg tcccggcgtg cttatccgcc cccgccggcc atgtcgaagc aaggagggaa 120

ggccaagccg ctgaaggcgc ccaaggccga caagaaggag tacgacgaga cggatcttgc 180

atatctgcag aagaagaaag atgaggaaaa agcactgaag gagcttaagg ccaaggcaca 240

gaagggcgcg attgggggct cgggtctgaa gaaaagtgga aagaaatgag actggtcacc 300

cgtctccaat acctagagga tgataaggca gctgtctatc tgtgttgccg ttcactaagt 360

gtgattgtaa cagtgggtacc tcttgtgttc tgtgttccgc gatgttgagc ttggttgc 418

<210> 413

<211> 446

<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-H8
 <400> 413

gcgaccattt tcccacaatg ctccacaagct cctatagctt cccttcttgc cccgtacgtc 60
 tcaccagcgg tgtcttcggg atgtgaaaac ccaattcttc aaccctatag gatccaacag 120
 gcaatcgag ctggcatctt acctttatca cccttggtcc tccaacaatc atcagcccta 180
 ttacagcagt tacctttggg gcattttattg gcacaaaaca tcagggcaca acaactacaa 240
 caacttggtc tagcaaacct tgctgcctac tctcagcaac aacagtttct tccattcaac 300
 caactagctg cattgaactc tgctttcttat ttgcaacaac aacaactacc attcagccag 360
 ctatctgtg cctacccccg gcaatttctt ccatttaacc aactgacagc tttggaactc 420
 ttctgcttat ttacagcagc aacaac 446

<210> 414
 <211> 255
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-G10
 <400> 414

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 tgagatgatg cgggcaactt ttatgtgtta gaacattgta ctcaactgat gcttgtggcc 120
 gttgaacctt ttatacttac ttttggtatt aagttaagga tagttaaaaa tatttgatgt 180
 tgaatacttg tggtggatgt tatatgtgtc aattctatgt ggatgctaga aaagttgtgt 240
 aagaaacata ctttt 255

<210> 415
 <211> 246
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-049-Q1-K1-G11
 <400> 415

cgtaagggtc atgggtccgc caataattaa actacattgt ggagtggatc tctactttga 60

tatggtgcag gcatctttta tgtgtcatat cattgtactc aactgatgct tgtggccggt 120
gaacctatta tacttactta tggatttaag ttaatgatag ttaataatat ttgatgttta 180
atacttgtgt tggatgtcat atgtgtcaat actatgtcga tgctacaaaa gctgtgtaaa 240
caacat 246

<210> 416
<211> 417
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-G12
<400> 416

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tgctcgttgc cctcgtcttc ctggctctcg ctgcgagcgc cacctccacg catacaagcg 120
gctggtgcgg ctgccagcca ccgcccggg ttcattctacc gccgccggtg catctgccac 180
ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgcccggg 240
tccacctgcc accgccggtc catgtgccgc cgcgggttca tctgccgccg ccacctgcc 300
actaccctac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360
aacagccgca tccaagccc tgccagctgc aaggaacctg ccgcgttggc agcacc 417

<210> 417
<211> 176
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-G2
<400> 417

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tgtccagaaa ccaatggatc cccaaacgat ttctgctogt ctcttttcta caactccaat 120
caatccacag ttcacttatg ttgcagcccc atgacccagt tatttcaaaa atgtta 176

<210> 418
<211> 389
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-049-Q1-K1-G3

<400> 418

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaata 60
tttggcctgc ttatgtcctt tggctcttct gcaagtgtcg ctacggcgac cattttcccg 120
caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca acagttacct 300
ttggtgcatt tattggcaca naacatcang gcacaacaac tacaacacct tgtgctagca 360
aaccttgctg cctactctca gcaacagca 389

<210> 419
<211> 454
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-G4

<400> 419

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cctggagggtg tggacacctc ggtcatcgac gagaccgtca ccgtgagcac cgaagaagcc 120
atggcgaatg cgaagaggct tgccaaggaa gaaggcctgc tcgtgggcat ttctttcgga 180
gcaaacctgg cagcttgttt gaaaggctcg ttcagacaag agaacaaggg caagattaat 240
cgtactgtgt ttccaaatgg gggggagaga tacattaact tcgaactctt tgcacatatg 300
ccagaagagt gcattggcat gacattttga gctttccttt ttcttttgga cactttggtc 360
tgaatggtgt cagcattctt cacaccacac agacatattt tcaggacatg gtgttgtaaa 420
tttagagaaa tatgtgacat gctttctaca tatt 454

<210> 420
<211> 371
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-G6

<400> 420

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 tgggggggagc acgaagagga gcgtgggcac cctcggcgag gcggatctga acgtgaagaa 120
 ggtgttcgtg cgcgccgacc tcaacgtacc tctcgacgac gccagaaga tcaccgacga 180
 caccgcgac cgcgcctacg tccccacat caagttctc ctcgagaaag gcgccaaggt 240
 catcctcgcc agccacctgg gtcgtccaaa aggtgttacc ccaaagtaca gcttgaacc 300
 tcttggtcca cgcttgtctg agcttcttgg agttgaagtc gtgatggcca atgattgcat 360
 tggtgaggaa g 371

<210> 421

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-G8

<400> 421

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 tgggggggagc gcaattcccc ggcgacaacg acgtcgcgga agtagacgag gcccgcgagc 120
 gagaggtgga ccgccgtgac gtgggcaaga tgaagcacgg gtgcgagcat taccggcgga 180
 ggtgcaagat cgtggcaccg tgctgcaacc aggtgttccc ctgccgccac tgccacaacg 240
 aggctacggc ttccggagat cggcatacaa tatgtcgtca ggatgttgaa aaagtagttt 300
 gcctactctg tgaacaaaaa cagccggtgt cacaagtgtg cataagctgt ggagtcaata 360
 tgggagagta cttttgtgat atatgcaaat tttatgatga tgatacagac aaagggcagt 420
 accattgcat cgattgtggc atatgcaggg ttggtggc 458

<210> 422

<211> 341

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-G9

<400> 422

aacaagcaac atagaaagtg gaatccagta gctacaatag agcaacaatg gcgaccaaga 60
 tattggccct ccttatgctc cttgctcttt ctacatgtgt tgctaacgag acaattttcc 120

ctcaatgctc acaagctcct atagcttccc ttcttccccc ataccttcca tcaattatag 180
 cttcaatatg tgaaaaccca gctcttcaac catataggct tcaacaagca atcgagcaa 240
 gcaacatacc tttatcgccc ttgttgtttc aacaatcgcc agccctatct ttggtgcagt 300
 cattggtaca aaccatcaag gcacaacagc tgcagcaact c 341

<210> 423

<211> 473

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-049-Q1-K1-H1

<400> 423

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 tcagaccacc gtcaccgttg ctggcctcct cctcttctc ctctctctgg cgctgccttc 120
 cctccgcgtc tccatggctg gatcagggtt ctgcgacggc aagtgcgcgg tgaggtgctc 180
 caaggcgagc cggcacgacg actgcctcaa gtactgcggg atctgctgcg ccacctgcaa 240
 ctgcgtgccc tccgggaccg cgggcaacaa ggacgagtgc ccatgctacc gcgacatgac 300
 caccggacac ggcaaccgca ccaggcccaa gtgcccctga tgatattcat tccttcgctc 360
 tgtcttgcat gcgtatgtaa tgtataggct gtgcaatgca tgcatacatg atacatgccg 420
 tgactctgga tcggcggatg cctatgcatg cttttcacta gctnaatata cta 473

<210> 424

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H10

<400> 424

ctacatagaa agtataatcc attagcaaca ttagatcaac aatggcgacc aagatatttt 60
 cccgccttgt gctccttgct ctttctacat gtgttgctaa cgcgacaatt ttccctcaat 120
 gctcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt atagcttcag 180
 tatgtgaaaa cccatctctt caaccatata tgcttcaaca agcaatcgca gcaagcaaca 240

tacctttatc gcccttggtg tttcaacaat caccagccct atctttggtg cagtcattgg 300
 taaaaaccat catggcacia cagctgcagc aactcatgct acctgtgatc aacca 355

<210> 425

<211> 356

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H11

<400> 425

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 ttttggtctg gtatgtcctt tggcttttct gcaagtgtct ctacggcgac cattttcccg 120
 caatgtctgc aagctcctat agcttccctt ctcccccggt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cacagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca tcagttacct 300
 ttggtgcatt tattggcaca aaacatcaag gcacaacaac taacacaact tgggct 356

<210> 426

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H12

<400> 426

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 ggagcccatg tggctcacgc tctcctgatg cgaagcctga ataaaattgc tatgctgtta 120
 aaggattgca gatggagtca ggagctcttc ttttcttaac atttgtcctc tgttctagta 180
 ccatcagtgt cttatcgcag tacgagattg gatgatatta actatctgta tcagcttgta 240
 tcgatggact ccaagtgttg tcactcttgt tgtctagtgt gctgaaggac ccatttactt 300
 ttgctaaact tttccattgg tgattgttgg atgaaaaact acaacaactt gtgctaacaa 360
 accttgct 368

<210> 427

<211> 425

<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-049-Q1-K1-H3

<400> 427

caacatgcaa cattgaaagt ggaatacagt agcaaaaata gagcaacaat ggcggccaag 60
 atagggttga tccttatgct cctagctctt tctgcatgtg ttgctaacgc gaccatactt 120
 cctcaatact cacaagctcc tatagctgcc cttcttccgc cataccttcc atcaatgacc 180
 gctttaatat gtgaaaaccc agcccttcaa ccctacagga tccagcaagc aatcgcaaca 240
 agcaacttac ctttatcaca cctgttcttt caacagtcgc cagccctatc tttggtgcag 300
 gcattggtac aaaccatcag ggcagaacag ttgcagcaac tcgtgctacc agtgatcagt 360
 caagtagctc tggcaaacct ttccccctac tctcagcaac aacaatntct tgcattcaac 420
 caact 425

<210> 428
 <211> 222
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H4

<400> 428

acgcagacgg cgagcagaac acacctgcag ctgcagaaat agggatcatgt cctgctagct 60
 tgaaagctct ggtacggagt agcaaggtag ggtagagaga gagagagtag caaactagct 120
 aaggcacagg gcagggcatg ggccggctgc attatattgg gatcggatct gggggcgacc 180
 gagctagcat cagctgagag aagaaagagg ggcaatatat aa 222

<210> 429
 <211> 309
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H5

<400> 429

ctcataatgt tcctccaaca aatggtgaac tttcaagccc caacaagcag agcccaaaga 60
 ggagcccatc ttgttcacgc tcttctgatg ccaagcctga ataaaattgc tattctgtta 120

aacgattgca tatggagtca agagctcttc ttttcttaac atttgactc tgctctacta 180
ccatcatagt ctcatcgag tacgagattg catgatatta actatctgca tcagcttgta 240
tcgatggact ccaaagtgtg catctctcgt tgactagagc actgaacgac ccatttactt 300
tagctaaac 309

<210> 430
<211> 375
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-G1
<400> 430

cccgtagctc gcgcagtcgc gagaggtggg ggtttcaggg gattatggaa tgcttaacaa 60
gttttccaag aaatgttgga aaagagtaca tctgttcaag caagttgggtg tccggaaacc 120
aatggatccc caaaaggatt tgctgctacg tctcttggtc gacaaaactcc agtcgatgcc 180
acaagttcac tgatgtggca tgcccatga gccagttat tcgaaaaagg ttacgctgga 240
gatgctttgc tgcaagtttg aacttagaag atggccctgc accctctgac tcgacgtcat 300
cttcatcaga gcagactact gatgctgatg gaactactaa tggatgatga tctgaaaatc 360
tgctttctcg aaagc 375

<210> 431
<211> 345
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-E7
<400> 431

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tacgaagata ttagccctcc ttgcgcttct tgccctttta gtgagcgcaa caaatgcgtt 120
cattattcca cagtgtcac ttgctcctag tgccattatt ccacagttcc tcccaccagt 180
tacttcaatg ggcttcgaac atccagccgt gcaagcctac aggctacaac tagcgcttgc 240
ggcgagcgcc ttacaacaac caattgccca attgcaacaa caatccttgg cacatctaac 300
cctacaaacc attgcaacgc aacaaccaca acaacaaccg tttct 345

<210> 432
 <211> 447
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-049-Q1-K1-E8

<400> 432

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 ttgttgccct tttagtgagc gcaacaaatg cgttcattat tccacagtgc tcacttgctc 120
 ctagtgccag tattccacag ttctcccac cagttacttc aatgggcttc gaacatccag 180
 ccgtgcaagc ctacaggcta caactagcgc ttgcgggcag cgccttataa caaccaattg 240
 cccaattgca acaacaatcc ttggcacatc taacctataa aaccattgca acgcaacaac 300
 aacaacaaca agttctggca tcactgaacc aacctaccg tgtgaaacc tgtcacctac 360
 ttgcaacagc agctgcttgc atccaacca cttgctctgg cgaacgtagc tgcttaccag 420
 caacaacaac agcttgccaca gtttatg 447

<210> 433
 <211> 316
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-049-Q1-K1-E9

<400> 433

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 tcgcaagctc ctatagcttc ccttcttccc cgtacctct caccagcggg gtcttcggta 120
 tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc ttgcatctta 180
 cctttatcac ccttgcttct ccaacaatca tcagccctat tacatcagtt acctttgggtg 240
 catttattgg caaaaacat cagggcacia caactaccac aacttgggct aaaaaacctt 300
 ggtggctaatt tttaac 316

<210> 434
 <211> 407
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F1

<400> 434

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gcctccttat gtccttgggt ctttctgcaa gtgctgctac ggcgaccatt ttcccacaat 120
gtcacaagc tcctatagct tcccttcttc ccccgtagct ctaccagcg gtgtcttcgg 180
tatgtgaaaa cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct 240
tacctttatc acccttggtc ctccaacaat catcagcctt attacagcag ttacctttgg 300
tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
ttgctgcta ctttcagcaa caacagtttc ttccattcaa ccaacta 407

<210> 435

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F10

<400> 435

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cgatggcgac gtcgaacacg ggcggtatgg aggacggcgg cggcgacctg cggagcacca 120
tgaagaagtg gaatatcatc taccctgtct acctcaactc caagaagacg gtcgccgagg 180
gccgccggat cgacgatgcc aaggcctgcc cggacccccac ctgcatcgag atcgctgact 240
gctgttcgca cctcatgac cccacgcca tcgagttgga taacgcgtac cctcgggatt 300
tcttccaggt ggggagggtc aggggtgcagc ttaagaaaga tgacggcttc gccgtcaatc 360
ctgctattaa aacgaagaag cagctgatga tccaagtagc agagctagtt cccaagcatc 420
acggaacgac aaagaagc 438

<210> 436

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F11

<400> 436

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gctacggggg ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
tcctatagct tgccttcttc caccgtacct atcaccagcg gagtcttacg tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca agcaatcgca gctggcatat tacctttatc 240
acccttggtt cttcaacaat catcaggcct attacaacag ttacctttgg tgcattttatt 300
ggcaccaaac atcaaggctc aacaactacc acaacttggt ctaacaaacc ttggtggcta 360
ctgttagcaa cagcaggctc cttcattcga cccacttggc tcattgaact ccgcttctta 420
attgcaac 428

<210> 437
<211> 361
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-F12
<400> 437

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gctagggggg ctttctacaa gtgctgctac ggcgaccatt ttcccgaat gctcacaagc 120
tcctatagct tcccttcttc ccccgacct atcaccagcg gcgtcttacg tatgtgaaaa 180
cccaattctt caaccctaca tgatccaaca ggcaatcgca gctggcatat tacctttatc 240
acccttggtt cttcaacaat catcaggcct attacaacag ttacctttgg tgcattttatt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctagcagacc ttgctgccta 360
c 361

<210> 438
<211> 459
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-F2
<400> 438

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gctgcttggt ctttctgcaa gtgctgctac ggggaccatt ttcccgaat gctcgcaagc 120

tcctataagt tcccatcttt ccccgtagct ctcaccagct gtgtcttcgg ttgggaaaac 180
ccagttcttc aaccctacag gatccaacag gcaatcacag ctggcatctt acctttatca 240
cccttgatcc tccaacaatc atcagcccta atacatcagt tacctttggg gcattttattg 300
gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaactc tgggtgcctac 360
tcttagcaac agcagtttct tccattcaac caactagctg cattgaactc tgcttcttat 420
ttgcaacaac aacaactacc attcagccag ctacctgt 459

<210> 439

<211> 327

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-049-Q1-K1-F4

<400> 439

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ctgtactata tagcctccgg tcgcggatcg tcaactgacga gtgatgtcat tccgcttgct 120
tgattgttcc acatattcgc agttgaccgg gtccctcggag cacgatgaag tttgttgctg 180
cctacttgct tgctgtcctc gctgggaacg ccagccctc cgctgaagat ttgactgcca 240
ttctggagtc agttggctgt gaagttgaca atgaaaggat ggaactcctg ctgtcccaac 300
tgagncgcaa tgacatcacc gagctca 327

<210> 440

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F5

<400> 440

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gctgggtgcc ctgcgtctcc tggctctcgc tgcgagcgcc acctccacgc atacaagcgg 120
cggctgcggc tgccagccac cgccgccggt tcatctaccg ccgccggtgc atctgccacc 180
tccgggtcac ctgccacctc cggtgcatct cccaccgccc gtccacctgc cgccgccggt 240

ccacctgcc a cgcgcgtcc atgtgccgcc gccggttcat ctgccgccgc caccatgcc 300
ctaccctact caaccgcccc ggctcagcc tcatccccag ccacacccat gcccggtgcc 360
acagccgcat ccaagcccggt gccagctgca gggaacctgc gccggtggca gcaccccgat 420
ccctggccag tgctcagagt ttctg 445

<210> 441

<211> 352

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F6

<400> 441

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ctttgacaaa ccagcagcc ttctaccaac aacacatcat tggcggtgcc ctcttttaga 120
ttgcttatta gttgtaattc aataatgaag ttttttggct gatgtatgtg gcctcctaga 180
aataagaagt tatatttcca aaaaacaaat acaaacgaca gtacaactga caacgacaga 240
acaaactgac aacgacagtc catgtgccga cgacgggttca tctgccggcg acaccatgcc 300
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<210> 442

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F7

<400> 442

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tataaagtaa cacttaggcc agcattcggc cgttctccaa atcaaaaact tattcttcct 180
cctcagcctc ctgcagccat ttgacaaacg gctccagagc tttcacgaaa gattgcctgc 240
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ggtcatacag tgttcttatg atttcaggaa acagcttcat cagcttagca tcctcatagc 360
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<210> 443
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F8

<400> 443

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 cggctaaccc cgcaaccctc ttacaactac aacaattggt gccctttgtc caacttgctt 180
 tgacagaccc agcggcctcc taccaacaac acatcattgg tggcgccctc ttttagattg 240
 cttattagtt gtaattcaat aataaagtat tttggatgat gtatgtggcc aaccagatat 300
 aagatgttac atttccaaaa gatattatga tttcaggaaa cagcttcacg agcttaacat 360
 tctcatagca ctgtgtctgt actttgtata taagttccat ttcgagtcta gcactcgtgc 420
 aa 422

<210> 444
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 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-F9

<400> 444

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 aggcggcgcc gttggcggag gcgcgcgtgt gccggcgccg gagcgcgggc ttcaaggggg 180
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 actgcgacgg catcatgcgc cagttcaagt gcatcaagga gtgctaacta gctaggctct 300
 aagatctaac cagctagcta tatccgcctt taattaaatt aataaggatc gacgtcgtgg 360
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<210> 445
 <211> 408
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-E6

<400> 445

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atagtttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120

cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180

gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgagca 240

agcaacatac ctttatcacc cttggttcaa caatcgccag ccctatcttt ggtgcagtca 300

ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360

gtagctctgg caaacctttc tccctactat cagcaacaac aatttctt 408

<210> 446

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D10

<400> 446

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cctagtgcc aatttccaca gttcctacca ccagttactt caatgggctt cgaacaccta 180

gctgtgcaag ccaacatgca acaacaagcg cttgcggcga gcgtcttaca acaaccaatt 240

gccaattgc aacaacaatc cttgccacat ctaacaatac aagccatcac aacgcaacag 300

caacaacagt tctaccagc actgagccac ctagccatgg tgaaccctgc cggctacttg 360

caagagcagc tgcttgcatc caaccactt gctctggcga acgtagttgc aaaccagcaa 420

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<210> 447

<211> 319

<212> DNA

<213> Zea mays

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<400> 447

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ccaggctcgcg gggctgttgg cggcgcagat agcgcagcaa ctgacggcga tgtgcggcct 180
gcagcagccg actccatgcc cctacgctgc tgccggcgga gtccccact gaagaaacta 240
tgcgctgtag tatagccgct ggctagctag ctagctgagt catttatcgg cgatgatcgg 300
gtaataatgt gtcacgcat 319

<210> 448

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D12

<400> 448

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ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg cgtcttcggg 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacaacagt tacctttggg 300
gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
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<210> 449

<211> 312

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D2

<400> 449

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gacatttgat caccactata tctcccgtca ccatgcagac gactacgtga ttgctacca 180

cagagggaga cttgcattca gccgactaac ttccactgca ctatcatgta tattgactac 240
 cgcacgcgta gctaaatgcc tgcagtgtat aagggtgtgat cgtactacga cgcttgacta 300
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<210> 450

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D4

<400> 450

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 tcattattcc acagtgtcga cttgtccta gtgccattat tccacagttc ctcccaccag 180
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 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcca tctactgagcc 360
 acctagccgt ggtgaaccct gtcacctact tgcaacagca gctgcttgca ttcaaccac 420
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<210> 451

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D5

<400> 451

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 ccgcaatgct cacaagctcc tatagcttcc cttcttcttc cgtacctctc accagcggtg 180
 tcttcggtat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagct 240
 ggcatcttac ctttatcacc cttgttccta caacaatcat cagccctatt acaggaatta 300
 cctttggtgc ctttattggc acaaaacatt agggcacaa cacttccaca acttgtgcta 360

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<210> 452

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<223> Clone ID: LIB3061-049-Q1-K1-D6

<400> 452

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tcctctaccg ccgccggtgc atctgccacc tccggttcac ctgccacctc cggtgcatct 180

cccaccgccc gtccacctgc cgccgccggt ccacctgcca ccgccggtcc atgtgccgcc 240

gccggttcat ctgccgccgc caccatgcca ctacctact caaccgcccc ggctcagcc 300

tcctccccag ccacacccat gcccggtgcca acagccgcac ccaagcccggt gccagctgca 360

gggaacctgc ggcgttgcca gcaccccgat cctgggccag tgcgtcgagt ttctgaggca 420

tcagtgcagc ccgacggcga cgcctactg etc 453

<210> 453

<211> 347

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D9

<400> 453

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gtatgtgaaa atcccatatt cttcaactcc tacaggatc caacatggca tatcgcatgc 120

tggcatactt atcctttatc atcccttggt cctccaacat atcatcgagc cctattacaa 180

tcagttactc ttttggtgca ttttaattggc acataaacat catgggcaca tacaactaca 240

tacaacttgt gctagcaaac gcttgctgcc tactctcatc aacagcagtt tcttccattc 300

aaccaactag gttcattgaa ctctgcttct tatttgcaac aacaaca 347

<210> 454

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-E10

<400> 454

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accagcagca gatgatggca cttttggcaa ttgttgtcca gaatccagac ttcctgaacc 120
agctcgtgca gcagcagcgc aggagtaact ggtggaatga tgatggtaac aggaaaagaa 180
ggttccaagc tctggaacat ggtcctgtag atgaccaaga gacttctggg ggaggcgcac 240
aaattattca atatcgtcct cctgttctctg aaacttccaa tcagccaata ccagcaaattg 300
aagctttcta ttcaaccctt gcacaaccag cttcaagccc tgcacttgag atgcccattg 360
atgtagagat gacttcaaac aatgttaata cctttgattc aactggcaat gattttactg 420
acacctctgc tctat 435

<210> 455

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-E11

<400> 455

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ctcacaagct cctatagctt cctttcttcc ccataacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt 240
accttaataa ccctggttcc tccaccacc gtaagcccta ttacagcagt taccttgggg 300
ccattgggtg ccccaaacca tcaaggcca ccacctccac cacctggtgc taggaaacct 360
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<210> 456

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-E12

<400> 456

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accttccatc aatgaccgct tcagtttgtg aaaaccacgc ctttcaaccc tacaggctcc 180
aacaagcaat cgcaacaagc aacttacctt tatcaccctt gttctttcaa caatcgccag 240
ccctatcttt ggtgcagtca ttggtacaaa ccatcagggc acaacagctg caacaactcg 300
tgctaccagt gatcagccaa gtagctctgg caaacctttc tccctactct cagcaacaac 360
aatttcttcc attcaaccaa ctgtctacac tgaaccctgc tgcttattta caacatcaac 420
aactactacc attca 435

<210> 457

<211> 463

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-E4

<400> 457

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tcaaaggaaa ggtcgggtatg cgccggtggt tttgctgcac gaggtttaat gcttcatacc 180
gtgaacatga aaatgaacgt cccatcactc cagaggagaa agaaggaaat ggttttttct 240
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gaaattgaag gaaagaaccg ccattttggg tcaatggcct tgaatggatga aggggcatat 360
tggaagagat ataatgcaat cttggacacc ggaaaccagg tggttggtta aaagcttgac 420
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<210> 458

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-D1

<400> 458

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 tctgcttctt atttgcaaca acaacaacta ccattcagcc agctacctgc tgcctacccc 180
 cagcaatttc ttccattcaa ccaactagca gcattgaact ctctgctta ttacagcag 240
 caacaactac taccattcag ccagctagct ggtgtgagcc ctgctacctt cttgacacaa 300
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<210> 459

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E3

<400> 459

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 aacgccgtca acgtactgcg cgtcgttccg agcaaggcta tcgagcattt cacctatgac 180
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<210> 460

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E4

<400> 460

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 caatgctcac aagctcctat agcttccctt cttccccctg acctctcacc aacgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240

atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
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<210> 461

<211> 254

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E5

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 tcattattcc acaatgctca cttgatccta atgccattat tccacaaatg catgaaccag 180
 ctacttcaat ggactatgaa cacctaacta tgcaagcaca tcatgagaca acaagcgctt 240
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<210> 462

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E6

<400> 462

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 tcgcatgac tccgacagtt gggatgatac taccaaagtc aatagacaaa ccctacttta 360
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<210> 463

<211> 77
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-047-Q1-K1-E7

 <400> 463

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 ctcagattca tgcctca 77

<210> 464
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 <212> DNA
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 <223> Clone ID: LIB3061-047-Q1-K1-E8

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<210> 465
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 <212> DNA
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 <223> Clone ID: LIB3061-047-Q1-K1-E9

 <400> 465

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 tcctatagct tcccttcttt ccccgtagct ctcaccagcg gcgtcttcgg tatgtgaaaa 180
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 acccttgatc cttcaacaat catcatccct attacatcag ttacctttgg tgcatttatt 300
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 ctctcagcat cagcagtttc ttccattcaa ccaactagct gc 402

<210> 466
 <211> 391
 <212> DNA
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<223> Clone ID: LIB3061-047-Q1-K1-F1

<400> 466

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agttgcagcg aaccttgctg cttatctcca gcaacaacaa tttcttccat tcaatcaact   240
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tgtcggggagc cctgatgcct tcttactgca acaacagctt ctgccattcc atctgcaagc   360
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<210> 467
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<223> Clone ID: LIB3061-047-Q1-K1-F10

<400> 467

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gggtgggggac gccggccatg gtggccagcc tgctgctctt ctaccggtcc tactatctct   180
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gagcactcga gctcgggtgcg cgcgacgtcg tcgtcctc                                     398
  
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<210> 468
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F11

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cagaacatgt ggagaactct gaggagaacg cgttgccact catatcactc cgatgctatg 300
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<210> 469

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F12

<400> 469

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<210> 470

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F2

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ggcgtaacgt agcttgtgtg tgctgagcgg tctctccctc tgtctctccc tctctttgct 360
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<210> 471

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F4

<400> 471

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cgctgcgcgg tggacgtgaa cgcgcgctgc cctgccgagc tgcggcagga cggcgtgtgc 180
aacaacgcgt gccccgtgtt caagaaggac gagtactgct gcgtcggctc ggcggccaac 240
gactgccacc cgaccaacta ctccaggtag ttcaaggggc agtgccccga cgcgtacagc 300
taccccaagg atgacgccac cagcaccttc acctgccccg ccggaaccaa ctacaaggtc 360
gtctttctgcc cgtgaggccg ctgaactagc atcagcgtgc gcgcgtcgac caagaacaag 420
aaataaacga ccgaggctgt gtatg 445

<210> 472

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F5

<400> 472

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caatgctcac aagctcctat agcttccctt cttcccccac acctctcacc agcgggtgtct 180
tcaatgtgtg aaaccccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgggctagca 360
aaccttgctg catactctca gcaacatcaa gttcttccat tcaaccaact ggctggcatg 420
gactcttgct cttaattgca accacca 447

<210> 473

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-F6

<400> 473

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gggtgacagc caatactcct tctctcttac cactttcagc ccgtcgggaa agcttgtgca 120
gatagagcac gcgctcacgg ctgtcggatc cgggcagacc tccctaggga tcaaagctgc 180
caacgggtgta gtgattgcca ccgagaagaa actgccttct attttagtgg atgaaacatc 240
tgtgcaaaag attcaggcac taacaccaaa tattggagtt gtctatagtg ggatgggtcc 300
agattttcgt gttctggtga gaaaaagtcg aaagcaggca cagcagtatt atcggttgta 360
caaggagcat atacctgtaa cacagcttgt gcgggagact gctgctgtga tgcaggagtt 420
cacacagtca ggtggtgc 438

<210> 474

<211> 452

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-047-Q1-K1-E2

<400> 474

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tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctccctccag 180

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 cggcgagcgt cttagaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
 ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
 ctatcgcta cttagaaca cagctgcttg cattcaaccc acttgcnttg gaaaacgtag 420
 ctgcatacca acaacaacaa cagttgcaac ag 452

<210> 475

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D10

<400> 475

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 gctcgcaagc tcctatagct tcccttctta ccccgtagct ctcaccagcg gtgtcttcgg 180
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 tacctttatc acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg 300
 tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggtg ctagcaaacc 360
 ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 420
 ctgcttctta ttgcaacaa caaca 445

<210> 476

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D11

<400> 476

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 gcttcgacaa acccagcagc gttctaccaa caacccatca ttggtgggtgc cctcttttag 180
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aaataagaaa gtccatgctt aaaaaaaaaa gataccacta ttaccattca tccagacaaa 300
tactgactac tctaaggctc aacaaatctc gtgcattcaa ccaattggctc gctactatca 360
caagctgctt atttgcagca ttca 384

<210> 477
<211> 425
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-047-Q1-K1-D12
<400> 477

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tgtgatcaac caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct 180
tccattcaac caactgtcta tactgaaccc tgctgcttat ttgcagcaac aactattacc 240
atttagccag ctagctactg cctactctca gcaacaacaa cttcttccat ttaaccaatt 300
ggccgcactg aaccccgctg cttatttgca gcagcaaata ctactgccat ttagcgagct 360
agctgcagca agtcgtgctt ctttcttgac acagcaacag ttgctgcctt tctacaagca 420
gtttg 425

<210> 478
<211> 457
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-047-Q1-K1-D2
<400> 478

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tccctgctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctccatagc ttcccttctt ccccatatac ttccatcaat tatagcttca 180
atatgtgaaa acccagctct tcaaccatat aggttcaac aagcaatgc agcaagcaac 240
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gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctctgat caaccaagta 360

gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
tctacactga accctgctgc ttaattgcag caacaac 457

<210> 479

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D3

<400> 479

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caccggcgcc tcctctcgc agccgccgctc ctgctctccg tgctcgcggc tgccagcgcc 120
agcgccggga cctcctgcgt gccgggggtgg gccatcccgc acaaccgct cccgagctgc 180
cgctggtacg tgaccagccg gacctgcggc atccggccgc gcctaccgtg gccggagctg 240
aagaggagat gctgccggga gctggcggac atcccgccgt actgccggtg cacggcgctg 300
agcatcctca tggacggcgc gatcccgcgc ggcccggacg cgcagctgga gggccgccta 360
gaggacctgc cgggctgccc gcgggaggtg c 391

<210> 480

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D4

<400> 480

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gcccggccga cgcgcagAAC tgcggctgcc agccaaacgt atgctgcagc aagtatggct 180
actgcccac gaccgacgag tactgcccgc acgggtgcca gtcgggcccgc tgccgctcgg 240
gcggcgccgg cagcagtggc ggcggtggtg cgaacgtggc tagcgtcgtc accggctcct 300
tcttcaacgg catcaagagc caggccggga gcggctgcga gggcaagaac ttctacacc 360
ggagcgcggt cctgagcgcc gtcaaggcgt acccaggctt cggccatggc gggtcgc 417

<210> 481
 <211> 452
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D5

<400> 481

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agcattaacc ctccaacagc catatgccct attgcaacaa ccaccccttag tgcacatgta  120
tctccaaaga atcgcgacac aacaactaca acaacagttg ctaccaacaa tcaatcaagt  180
agttgcagcg aaccttgctg cttatctcca gcaacaacaa tttcttccat tcaatcaact  240
agctgggggtg aaccctgctg tctacttgca ggcacaacaa ctactaccat ttaaccaact  300
tgtcggggagc cctgatgcct tcttactgca acaacagctt ctgccattcc atctgcaagc  360
tgtggaaaac attgcttctt tcttgcgaca acaacaattg gtgccatttt acccacaggt  420
tgtgggaaac attaatgcct tcttgcaaca gc                               452
  
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<210> 482
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D7

<400> 482

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tcatctagcc ctctcgctga ggttaatgca cctacatacc tgcaacaaca gttgctgcaa  120
cagattgtac cagctctgac tcagctagct gtggcaaacc ctgctgccta cttgcaacag  180
ctgcttccat tcaaccaact gactgtgtcg aactctgctg cgtacctaca acagcgacaa  240
cagttactta atccactagc ggtggctaac ccattggctg ctgccttcct acagcagcaa  300
caattgctgc catacaacca gttctctttg atgaaccctg ccttggttggt gcagcaaccc  360
atcgttggag gtgccatctt ttagattaca tatgagatgt actcgataat ggtgccctca  420
tagcggcatg t                               431
  
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<210> 483
 <211> 443

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-047-Q1-K1-D8

<400> 483

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atattatccc tccttgcgct tcttgcgctt tttgcgagcg caacaaatgc gttcattatt  120
ccacaatgct cacttgctcc aagttccatt attacacagt tcctcccacc agttacttca  180
atgggcttcg aacacccagc tgtgcaagcc tataggctac aacaagcaat tgcggcgagc  240
gtcttacaac aaccaatttc ccagttgcaa caacaatcct tggcacatct aacaatacaa  300
accatcgcaa cgcaacagca acaacaattc ctaccagcac tgagccacct agccatggtg  360
aaccctgccg cctacttgca acagcagttg cttgcatcan acccacttgc tctggcaaac  420
gtagttgcaa accagccaca aca                                     443
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<210> 484
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-D9

<400> 484

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gtcctctgggt atttctgcaa gtgctgctac ggcgaccatt ttcccgaat gtcacaagc  120
tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa  180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc  240
acccttgatc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt  300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgctta  360
ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta  420
attgcaac                                     428
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<210> 485
 <211> 429
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-E1
 <400> 485

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 caacaattgt tgcaacagat tgtaccagct ctgactcaac tagctgtggc aaaccctgtt 120
 gcctacttgc aacagctgct tccattcaac caactgactc tgtcgaactc tgctgcgtac 180
 ctacaacagc gacaacagtt acttaatcca ttggtagtgg ctaaccatt ggtcgccgcc 240
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 tcgaggcagc aacccatcgt tggagggtgcc atcttttaga ttacatatga gatgtactcg 360
 ataatgggtgc ctcataccg acgtgtgttt cctagaaata atcaatatat tgaatgaaga 420
 ttatctccg 429

<210> 486
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-047-Q1-K1-E10
 <400> 486

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 aagatcctgg agcgcgtacg caagatgtcg gagaaggccg gtcgggtgga gctggagctg 300
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 aaggcggcgg cgtccaccgt cgtgcagggt cagcggcggt cgcgggtgca tctgggtggag 420
 tacctcta 428

<210> 487
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E11

<400> 487

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tacacaaatg acccccgagg aagtcacatcg gaattttggt agttttgaat gcatgattaa 180
gggctccaag aagatcatcg agcttgatga gccttcacaca tccgaggcgc aaccctgggc 240
cttcaaggca acggaggagg agtctacacc aagtagacaa ccaattgacg cctccaagct 300
cgacaacgag gagatggccc taatcatcaa aagcttcggg caaatcctca agcaacggaa 360
ggggaaggac taaaaatccc gttccaagaa ggtttgctac aagtgtggta agcccgggtca 420
ctttattgct aaa 433

<210> 488

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-E12

<400> 488

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agctcctata gcttaccttc ttaccccgta cctttcacca acgggtgcctt cagtatgtga 180
aaacccaatt cttgaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
atcaccccttg atcctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
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<210> 489

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-D1

<400> , 489

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ctgccgccta cctacaacag caacaactga tttcatctag ccctctcgct gtgggttaatg 120
cacctacata cctgcaacaa cagttgctgc aacagattgt accagctctg actcagctag 180
ctgtggcaaa ccctgctgcc tacttgcaac agctgcttcc attcaaccaa ctgactgtgt 240
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acccattggc cgctgccttc ctacagcagc aacaattgct gccatacaac cagttctctt 360
tgatgaaccc tgccttggtg tggcagcaac ccatcggttg aggtgccatc ttttagatta 420
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<210> 490

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B6

<400> 490

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tagtcctgaa acagtggcca atctatatta tactctctct gttctttctt ttttatttgt 180
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tgacttagac gtaactttag tgcaccgaat gtagtcaacc tttgtttgct ttggacaatg 300
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<210> 491

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B7

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<210> 492

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B8

<400> 492

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aaccctgtca cctacttgca acagcagctg cttgcatcca acccacttgc tctggcgaac 420
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<210> 493

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B9

<400> 493

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aatttggtgt ggacccaaat gtagatccag agttggcact cgccctgcgg ttgtctatgg 360
aagaagaacg agcaaggcaa gaggctattg caaaaaaggc tgcataagat acatctaata 420
ccgaa 425

<210> 494

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C1

<400> 494

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cacgggcccc agcaatgaaa tcatgtcgtg actctctcag gggatgattc cgatatgac 360
caatggcctc tggttttc 377

<210> 495

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C10

<400> 495

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gacacaggct cggccgtccg gcgatctcgc tcaccggccg gaacatgact acttcaaggc 120
gccttgctga caggaagacc gcaaagttcc agaagaacat caccaggagg ggttctgtgc 180
ctgaaaccac tgtcaagaag ggaaatgact accctgttgg ccctctagtg cttgggttct 240
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aggtggcttg agagccgtgc cacatgtaat gcccagtata gagagttgct tgatatacat 360
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<210> 496

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C11

<400> 496

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cccctacgct gctgccggcg gtgtcccca ctgaagaaac tatgggctgt agtatagccg 240
ctggctagct agctagtga gtcatttagc ggccaagatt gagtaataat gtgtgacgca 300
tgaccatggg tggcagtgtc agcgtgagca atgacctgaa tgaacaattg aaatgaaaag 360
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<210> 497

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C12

<400> 497

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caatgctcac aagctcctat agcttccctt ctcccccggt acctctcacc agcgggtgtct 180
tctgtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
ttggagcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt c 431

<210> 498
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C2

<400> 498

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 cagacaccac cgtttcatct accgcctccg ttctatatgc cgctccggtt ctatctgccg 180
 ccgcagcagc agccgcagcc atggcaatac cccactcaac caccgcagct aagcccgtgc 240
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 gagttcctga ggcaccagtg cagcccggcg gcgacgcctt acggctcgcc acagtgccag 360
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 gcgacata 428

<210> 499
 <211> 397
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C3

<400> 499

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 ttcttcccc atacctctca ccagcgggtg cttcagtatg tgaaaaccca attcttcaac 180
 cctacaggat ccaacaggca atcgagcagc gcattctacc tttatcacc ttgttctctc 240
 aacaaccgtc agccctatta cagcagttac ctttggtgca tttgttggca caaaacatca 300
 gggcacaaca actacaacaa cttgtgctag caaaccttgc tgccctactct cagcaacagc 360
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<210> 500
 <211> 426
 <212> DNA

<213> Zea mays
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 gctatgactg gcgagatgac tctaaggggc cttgtattgc cagttggtgg tgttaaggac 180
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 gtacca 426

<210> 501
 <211> 446
 <212> DNA
 <213> Zea mays
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 <400> 501

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 ttttccctca atgctcaciaa gctcctatag cttcccttct tccccatac cttccatcaa 180
 tgatagcttc agtatgtgaa aaccagctc ttcaacccta taggctccaa caagcaatcg 240
 cagcaagcaa cataccttta tcacccttgt ttcaacaatc gccagcccta tctttggtgc 300
 agtcattggt acaaaccatc aaggcacagc agctgcagca actcgtgcta cctgtgatca 360
 accaagtagc tctggcaaac ctttctccct actatcagca acaacaatgt cttccattca 420
 accaactatc tacactgaac cctgct 446

<210> 502
 <211> 400
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C7

<400> 502

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attattccac agtgcctcact tgctcctagt gccattatc cacagttcct cccaccagtt 180
acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg 240
gcgagcgctt tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc 300
ctacaaacca ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac 360
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<210> 503

<211> 417

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-047-Q1-K1-C8

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cgacgagtga tggctattcc ttggacatct ttgttggtga tggctgggag tatgaggctg 180
acattctcca aagtgcattg agggaaggcg ttgataaaat aaagtacaga gcatggccgt 240
tggtaccgtc gatgtctgct aggatggatc accaaccatt ggaggtttct ccttcatctg 300
actttgtcca gataccagct gatgcagctg atgtttggga agtcgatctc aggcttctca 360
aatttgaaca aaaattagcg tctggatcat ntggatgatc ataccatggg acgtact 417

<210> 504

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-C9

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cacgacggct gggtccttga cccaccgag agctacaacc attgggccgg gcgcagccgg 240
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gtgaccgagc aggacttca cagtgcaac acgcgcatac ccgggtccggc ggctccaagc 360
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<210> 505

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-047-Q1-K1-B5

<400> 505

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ttcccttctt ccccatacc tctcaccagc ggtgtcttca atgtgtgaaa acccaattgt 180
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catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcat actctcagca 360
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<210> 506

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D8

<400> 506

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acaactagcg cttgctggcg gcgccttaca acaaccaatt gcccaattgc aacaacaatc 120
cttggcacat ctaaccctac aaaccattgc aacgcataa caacaacaac aacagtttct 180

gccatcactg acccacctag ccgaggtgaa ccctgtcacc tacttgcaac agcagctgct 240
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<210> 507

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D9

<400> 507

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 acaagctcct atagctttct ttcttgccag atacctgtca ccagcgtgt cttcagtatg 180
 tgaaaaccca actcttcaac cctacaggat ccatcaggca atcgcaacag gcatcttacc 240
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 tttcatggca cctaaccatca aggcacatca cctacaacaa ctagggttat gaaaccttgc 360
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<210> 508

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-E10

<400> 508

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 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcgggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg gcatcttacc 240
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tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
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<210> 509
 <211> 340
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-E11
 <400> 509

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 tctcttccat tcaaccaact agcagcattg aactctgctg cttatttaca gcagcaacaa 180
 ctactaccat tcagccagct agctgatgtg agccctgctg cttcttgac acatcatcag 240
 ttgatgccgt tctacctgca cgctatgcct aacgctggca cctattaca actgcaacaa 300
 ttgctgccat tcaaccaact tgctctgaca aaccaacag 340

<210> 510
 <211> 336
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-E12
 <400> 510

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 gggctctacc actggcagca actactacat gcggatcctc atcaccatca accgcgagtt 180
 gctcaagccg tcagcgttcg tcgcgttgca tagtcacttc aacgctctag tcgacgtgct 240
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 ttacaacgat attggatgat gttgcattca aaagca 336

<210> 511
 <211> 415

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-E2
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 taccaacaac ccatcattgg tgggtgccctt ttttagattg cttatgaatt atagttcaat 360
 aatgaagttt tttggatgat gcttgtggcg ttccaaaaat aaaaagtaca ttttt 415

<210> 512
 <211> 314
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-E3
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 cggaaccagc aagc 314

<210> 513
 <211> 260
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-E5
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ccggttcac tgccacctgc agggcacctt ccaactgcgg ggcattacc accgacgatc 120
cacctgccat cgctgtcca cctgccacct tcagtcattg tgccgcctcc agtacatctg 180
ccgtcatcac catgccacta ccctactcaa ccgcccctac ctcaacctca ttcacagcca 240
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<210> 514
<211> 441
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-051-Q1-K1-E6
<400> 514

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gctgtggtca acaacaaagc catgagcagc aacatcatcc acaacaacat catccacaaa 180
aacaacaaca tcaaccacca ccacaacatc accagcagca gcaacaccaa caacaacaag 240
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aacaaccgca gcaccaacaa caacaacaac aacaacagca ccaacaacaa catcaatgtg 360
aaggccaaca acaacatcac caacaatcac atggccatgt gcaacaacac gaacagagcc 420
atgagcaaca ccaaggacag a 441

<210> 515
<211> 374
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-051-Q1-K1-E7
<400> 515

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accagctaca tggccctgag tatggcactc accagcgcac gatacacacg ttgagcctta 360
tgtgaaagcg tatg 374

<210> 516
<211> 447
<212> DNA
<213> Zea mays

<223> unsure at all n locations
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<210> 517
<211> 135
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-E9

<400> 517

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ctatatttta agttc 135

<210> 518
<211> 239
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F1

<400> 518

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gcactattac tagaccgtac ctggaaggcc atttcgagca gctgagcatg agagaccaac 180
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<210> 519

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F10

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cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat tggcacaaaa 300
catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct actctcagca 360
acagcagttt ctttc 375

<210> 520

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F11

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gccttacaac aaccaattgc ccaattgcaa caacaatcct tggcacatct aaccctacaa 120
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gcgaacgtag ctgcatacca gcaacaacaa cagctgcaac agtttatgcc agtgctcagt 300
 caactagcca tgggtgaaccc tgccgtctac ctacaactac tttcatctat cccgctcgcg 360
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<210> 521

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D7

<400> 521

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<210> 522

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-C3

<400> 522

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 ttacttcaat ggcttcgaa caccagctg tgcaagccta taggctacaa caagcgattg 240
 cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
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<210> 523
 <211> 449
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-051-Q1-K1-C4

 <400> 523

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agcttgagcg tgccgctgcc gncagcagca gcctgtacga gccagctctg atgcagcagc   420
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<210> 524
 <211> 196
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-051-Q1-K1-C5

 <400> 524

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gagtattcaa acttac                                             196
  
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 <211> 416
 <212> DNA
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 <223> Clone ID: LIB3061-051-Q1-K1-C6

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gcgctgaagc ggagcgccag catcgaccgg ataccggcgg acgcgcgccg catcctgcac 180
cgctcgccg gggacctctg gggcgggcgc gtggaccccg gcgcgctggc cgtgtcccag 240
ctcaggggcg ccatgaccaa cgaggtcttc cggatcacct ggcccggcgg cgaggccgag 300
ggcaacggcc cgcgcatggt gctcgtgcgc atctactggc gtggcgtcga ggtcttcttc 360
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<210> 526

<211> 465

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-C7

<400> 526

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cgtggaggga aggccatccg accagctggg caggagaaac ctactgaca gccccgtatt 180
tgacggccgt ggccctgacg ccagcctcgt ggctcgcgta caggagtcg ctaccagat 240
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gctcgtcacc gaaggcgcga tgacagaagg gtcagacgag tgggcgatct acggtggaac 360
tggagtgttc gcgatggcga gaggcgtcat aaggagaacg tttcttgccg acacgagcgg 420
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<210> 527

<211> 421

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-C8

<400> 527

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 tgacggccgt ggcctgacg ccagcctcgt ggctcgcgta caggagtcg ctacccatat 240
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 gctcgtcacc gaaggcgca tgacagaagg gtcagactag tggtcgatct acggtggaac 360
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<210> 528

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-C9

<400> 528

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 ccgcccgcgc ctctgatctc cgcgaggttg tcaggattca atatgtcgac cagcacattc 180
 gctacttcct gcacgctggt gggcaatggt agaacaacgc aggcctccca gacagccgtg 240
 aagagccctt cgtctctaag cttcttcagc caagttacga aggttccaag cctgaagacc 300
 tccaagaaac tggatgtcta cgccatggct gcatacaagg cgaagcttgt cagacctgaa 360
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<210> 529

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-D1

<400> 529

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 ggcgctgatg gcggcccagg tagcgcagca gctgacggcg atgtgcggtc tgcagtgca 180

gcagccaggt ccctgccctt gcaacgcagc tgccggcggt gtctactact gaggaaacta 240
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 tcactcgttt agcggcgatg agtaacggag tgtcacccat caccatgggt ggcagtgtga 360
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 ttggg 425

<210> 530

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D11

<400> 530

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 tgctctcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttca 180
 ctatgtgaaa acccaattct tcaaccctac acgatccaac acgcaatcgc acctggcata 240
 ttacctctat cacacttggt cctacaacaa tcatcagccc tattacaaca gttacctttg 300
 gtgcatatat tggcacaaaa catcagggca caacatctac aacaacttga gctagcaaac 360
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<210> 531

<211> 354

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-D2

<400> 531

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 tgctcgcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg 180
 gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc agctggcatc 240

ttacctttat cacccttggt cctccaacaa tcatcagccc tattacaaca gttacctttg 300
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<210> 532

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D3

<400> 532

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cgagatcact ggtcgggtgg cggacgacga cacatgggga agggtagtgt gggatgcatca 120
tggtgggctg tcctcctgct cgccggcgtg ctgctggctg tagcagccac ggccggggcg 180
gaggacggag tggcgaacg ggaccgcaag gaggacctgc ggtgggtgcaa gcaggcgtgc 240
gagtggcagt acggaagga cccccgcgg aagaggggaat gcgagagcga gtgccgcgag 300
cggcaccagc aagctgacgc gggcgaggac ggcgacagcg gcgtggacgc ctacgtctcc 360
cgctccggga gggcgagtg cggcgccag tgctgcgcc gtcacgaggg ccagccgtgg 420
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<210> 533

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-D4

<400> 533

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tggtgggctg tcctcctgct cgccggcgtg ctgctggctg tagcagccac ggccgtagcg 180
gaggacggag tggcgaacg ggaccgcaag gaggacctgc ggtgggtgcaa gcaggcgtgc 240
gagtggcagt acggaagga cccccgcgg aagaggggaat gcgagagcga gtgccgcgag 300
cggcaccagc aagctgacgc ggtctaggac ggcgacagcg gcgtggacgc cta 353

<210> 534

<211> 449
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-D5
 <400> 534

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 gaagtactcg tcccgcgacc tcgccgagca tacctcgctc aagctcagaa aagacgggtca 180
 acagacccaa gaggagtac agaagaggaa tctcagggag gaacttgagg aacgtgagcg 240
 caagcactac tcttcagcat aggacttatc cttggaagag accggcggaa aagctcaagc 300
 cagctactcc tagaagggtc aaagagagag gcagaggata agatagttcc acgagaaatc 360
 gatgcagatg actccgatgt ggagcctaaa agtgatgatg agagcgatga agatggcgac 420
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<210> 535
 <211> 446
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-051-Q1-K1-D6
 <400> 535

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 caatgtcac aagctcctat agcttccctt cttcccccat acctctcacc agcgatgtct 180
 tcagtatgtg aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc 240
 atcttacctt tatcaccctt gtctctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca naacatcagg gcacaacaac tacaacaact cgtgctagca 360
 aaccttgctg cctactctca gcaacagcag ttacctttgg tgcatttgtt ggcacataac 420
 atcanggcac aacaactaca acaact 446

<210> 536
 <211> 82

<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-051-Q1-K1-A8

<400> 536

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aaataagaag gtacatttct ag 82

<210> 537
<211> 404
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B10

<400> 537

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gctaaaggaa aagttgtcaa cactagaaaa agagcatttt atccaaaata atcagcaaga 120
tctcgagcta atcatgcaag aaagtgagga aatggttctc cgtgatattg agatggagcc 180
acaaagatca tgtgagattt ctgatcgaga tatacagtac gaagggtca tcaagctgaa 240
tcaggtttta gaaattgcct caaccactgt aaaagaaata gaaacaaaaa ggttgaatct 300
cagtgatatc caaggtaaaa gagagcaaga aaaacagcta gaatgcatcc tggatatttat 360
catgaattgg tcaaaggaat taatgagact gaacatagag tgcc 404

<210> 538
<211> 380
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B11

<400> 538

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cacggcacct gcgcagacga cgtcttcgac gagcacggct acttccaggc cgcgctgcgc 180
ctccgcgacc agctgggagt cctcggcagc gctcacctcc gccggcgta agcccgacgg 240
cggctactac acgctgagcc agatcaaggg cgccatccgg caaggcaccg gcttcgagcc 300

ctacgtggag tgcaaccgct actaggccgg caacagccag ctctaccagc tctacttctg 360
cgttgacgcc gccggcgaca 380

<210> 539
<211> 382
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B12

<400> 539

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gcccgcgggc ccgaggagac gccgcagtac acgacgggtg acgaggagtc ggacttcgag 120
gtgaggctgt acggcgacac cgtctggatg tccgccccca ccccgacat cccttccttc 180
cacgtcgcca ccaagctcgg ctccacaga ttgttcagtc acctgatggg cgcaaacctc 240
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cctctgcgct cctcggccta ctccgtcgg ctgtacctgc cggcgaagtt ccaggcttac 360
cctgcggttc ctctccgga gc 382

<210> 540
<211> 254
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B2

<400> 540

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cctcaaccat gatatacgcc ttaggattgg tatgcagatc attgcgaaga ccctgactgg 180
aataaccata gccttgagg atgtcagctc ggacactatc tacaatgtgt aagctgatat 240
ccatgacaag gatg 254

<210> 541
<211> 433
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B3

<400> 541

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ttgagtacaa gaacattagc ttcactgtct gggatgtcgg gggtcaggac aagatcagac 300
ctctttggag gcattacttc cagaacaccc agggctcttat ctttgctgtg gacagcaatg 360
accgtgaccg tgttggtgaa gccagagatg agctccacag gatgctgaac gaggatgagc 420
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<210> 542

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B4

<400> 542

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aatgctcact tgctcctagt gccattatc cacagtctct cccaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgtct 240
tacaacaacc aattgcccaa ttgcaacaac aatccttgcc acatctaaca atacaagcca 300
tcacaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atggggaacc 360
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<210> 543

<211> 159

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B5

<400> 543

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aacccttgctg aacgtttgtt ctgaacataa ctggaactct gcatttgctt gtatgacatg 120
cgtatgggttc aggaagttaa attccaatat ttgggtcact 159

<210> 544
<211> 433
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-051-Q1-K1-B6
<400> 544

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ttgtgctagc aaaccttgct gcctactctc agcaacagca gtttcttcca ttcaaccaac 120
taggttcatt gaactctgct tcttatttgc aacaacaaca actaccattc agccagctac 180
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ccttcttgac acaaccacag ttgttgccgt tctaccagca cgttgcgcct aacgctggca 360
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gtgttctacc aac 433

<210> 545
<211> 437
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-051-Q1-K1-B7
<400> 545

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tgcgcggggc tgcagggtt gtacggcgct ggcgcgggcc tgacgacgat gatgggcgcc 180
ggcgggctgt acccctacgc ggagtacctg aggcagccgc agtgcagccc gctggcggcg 240
gcgcctact acgcgggtg tgggcagccg agcgccatgt tccagccgct ccggcaacag 300

tgctgccagc agcagatgag gatgatggac gtgcagtcg tcgcgagca gctgcagatg 360
atgatgcagc tngagcgtgc cgctgccgnc agcagcagcc tgtacgagcc agctctgatg 420
cagcagcagc agcagct 437

<210> 546

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B8

<400> 546

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agtgtcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgcct 240
tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg 360
tgaaccctgt cacctacttg caacagc 387

<210> 547

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-B9

<400> 547

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gattcacttc tgggatgcgg catccgaatg tttatacgga tggtcgtggt cagcatcatc 180
tattcttcat ccacctgctg aagatcccag tggttatgag cttgcacgcg aacggtggac 240
accagtgcac acggttgaaa gtatagttct gagcatcatt acaatgctat ctattccgaa 300
tgacgagtct ccagcagata ttgaagctgc caaggactgg atagagaagc gggatgagtt 360
caagaagaag gttaggcaat gt 382

<210> 548
 <211> 444
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-051-Q1-K1-C1

<400> 548

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 gctgattagg agggcagaga gatgcttga agcaggcgct gatatgatca tgatcgatgc 180
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 cgtcagacgt tatggcccaa gggtaaatct ctttgttgaa cactctgacg tgatgaatct 360
 ggagcgctn cggggcttca acatgcgcag aagcaactcg gncttccgtt ttgcctcgnc 420
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<210> 549
 <211> 403
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-051-Q1-K1-C10

<400> 549

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 gctcacaagc tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 180
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 ttgctgcta ctctcaaaa caacagtatc ttccattcaa cca 403

<210> 550
 <211> 230

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-C12

<400> 550

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gcgtcccaga aataagatag tacatttcta gattcttaac acataacatc aaagaccgat 180
acactatgtg aaaacacatc tcttaaacca tacgaagctt gaacgcgcta 230

<210> 551
<211> 443
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-A6

<400> 551

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gtggctacgg tgggtggtgt ggc 443

<210> 552
<211> 252
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D1

<400> 552

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gttggcacag tcacagatga caaaaggatc caggagggttc cagcaatgaa ggttactgcc 180
 ctgaggttca cggagacagc aaggggccaag attgtcaatg ctggtggcga atgcctcaca 240
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<210> 553
 <211> 392
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-D10
 <400> 553

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 ttccacaatg ctacttgct cctagtgccca ttattccaca gttcctccct ccagttactt 180
 caatggggtt cgaacaccca gctgtgcaag cctacaggct acaacaagcg cttgcggcga 240
 gcgtcttaca acaaccaatt gcccaattac aacaacaatc cttggcacat ctaaccatac 300
 aaaccatcgc aacgcatcag caacaacaat ttctaccagc actgagccaa ctagctgtgg 360
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<210> 554
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-D11
 <400> 554

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 caacagtaga gcaacaatgg cgaccaagat attttccctc cttatgctcc ttgctctttc 120
 tacatgtgtt gctaacgcga caattttccc tcaatgctca caagctccta tagcttccct 180
 tcttccccca taccttccat caattatagc ttcagtatgt gaaaaccag ctcttcaacc 240
 atataggctt caacaagcaa tcgcagcaag caacataoct ttatcgccct tgttgtttca 300
 acaatcacca gccctatctt tgggtgcagtc attggtacaa accatcaggg cacaacagct 360
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tcagcaac

428

<210> 555

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-050-Q1-K1-D12

<400> 555

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ccagctgaat ccgtcgccgt cgtcgtcgtc gttttcgttc ccatcgtcac aagtccagta 120

ccaaacgtgc cagcgcgacg tcgacaggca caacgtctgc gccatggagg tgaggcacag 180

cgtcgaacgg ctggaccagg ccgacgtcta cagccctggg gctgggagga tcacacgcct 240

taccagccac aagttccccg tcttcaacct cgtacagatg agcgcggtgc gggtagacct 300

gtaccaggac gccatcatgt cgccgttctg gaacttcaac gccacagcg ccatgtacgg 360

catcaggggc agtgcaaggg tccatgtcgc cagcgacaac gggaccacgg tgttcgacga 420

cgtgctncgt gcggg 435

<210> 556

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D2

<400> 556

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tactgcttgg tctttctgca agagctgcta cagcgaccat tttcccgcaa tgctcgcatg 120

ctcctatcac ttacatactt cccccgtacc tatcaccatc cgtgtcttaa gtatactaaa 180

acccaattct tcaaccctac aggatccaac atgcaatctc atctggcatc ttacctttat 240

cacctcagt cctccaacaa tcatcaacc tattacaaca cttacctctt gagcatttat 300

tggcacaaaa catcagggca caacaactac aacaacttgt gctaacaaac cttgatgcct 360

actatcatca acagcagctt cttccattca accaactaag ttcattgaac tctgcttgtt 420

atttgcaaca tcaacgacta ccatt

445

<210> 557

<211> 462

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D3

<400> 557

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tctgctggcg ctcgctgcta gcgccgcctc cagtacaagc ggcggtgtg gctgccagac 120

accaccgttt catctaccgg ctccgttcta tatgccgtct ccgttctatc tgccgccgca 180

acagcagccg cagccatggc aataccccac tcaaccaccg cagctaatacc cgtgccatca 240

gttcggatcc tgctgggtca gcagcgtccg cagcccgttc ctgggccagt gcgtcgagtt 300

cctgaggcac cagtgcagtc cggcggcgac gccctacggc tcgccacaat gccaggcgct 360

gcagcagcag tgctgccacc agatcatgca agtagagccg ctgcaccggt accaggccac 420

ataccgtgtg gtccctgcagt cctttctgca gcatcatccg ca 462

<210> 558

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D4

<400> 558

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gatggaacag gcaatctcaa caggcatctt accattatca cccttgttcc tgcaacaacc 120

gtcagcccta ttacagcagt tacctttggt ccatttggtg gcacaaaaca tcatggcaca 180

acaactacaa caacttgtgc tagcaaacct tgctgcatac tctcagcaac atcagtttct 240

tccattcaac caactggctg cattgaactc tgctgcttat ttgcaacaac aattaccatt 300

cagccagcta gttgctgcct acccccagca atttcttcca ttcaaccaac tagcagcatt 360

gaactctgct gcttatttac agcagcaaca actactacca ttcagccagc tagctgatgt 420

gagccctgct gcctttttga cacaacaac 449

<210> 559
 <211> 449
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D5

<400> 559

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 cgacgaagat attttccctc gttatgctcc ttgctctttc tacatgtgct gctaacgcga 120
 caattctcca tcaatgctca caagctccta tagcttccct tattccacca taccttgcac 180
 caattatagc ttcagtatgt gacaaccag ctcttcaacc atatatgctt caacaagcaa 240
 tcgcagcaag caacatacct ttatcgccct tgttgcttca acaatcacca gccctatctt 300
 tgggtgcagtc attggtacaa accatgacgg cacaacagct gcagcaactc gtgctacctg 360
 tgatcaactc aatccctctg gcaaaccctc tctctactc tcaacaacaa caatttctcc 420
 catttaacca actgtctaca ctgaaccct 449

<210> 560
 <211> 197
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D6

<400> 560

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 atgagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt tcattattcc 120
 acaatgctca cttgctccta gtgccattat accacagttt ctccgaccag ttacttcaat 180
 gggcttcgaa cacctag 197

<210> 561
 <211> 312
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D7

<400> 561

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tatggtcctt ggtctttctg caaatgctgc taccgcaacc attttcccac aatgctcaca 120
agcttctata gcttccttta ttaccacata cctatcacca gcggtgtctt cagcatgtga 180
aaaccaatt cttcaaccct acaagatcca acaggcaatc gcagcaggca tcttaccttt 240
atcaccttg atccttcaac aaccagtagc cctattacag ggagtacctt tgggtgcattt 300
gttggcacia aa 312

<210> 562

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D8

<400> 562

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gctgggtggtg gagcacggca tcccagagga ggtgatgcgc gacatgctgg aggtgtgcga 180
ggagttcttc cagctgccgg cggcgagcaa ggcgtacatg tactcggagg acagtcagag 240
acccaaccgg atcttctacg gcacaacctt cgacacgggc ggcgacaagt actggcgga 300
cttgctccgt ctgggtggc ccttgttctt cccggtcggc agcggcacia gggacgactg 360
ggcggacacg cccaacggc tgaagggtgt cgaggaac 398

<210> 563

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-D9

<400> 563

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tcccggctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat gatagcttca 180
gtatgtgaaa acccagctct tcagccctat aggtccaac aagcaatcg agcaagcaac 240

atacctttat cacccttgtt gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300
 gtacaaacca tcagggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
 gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
 tctacactg 429

<210> 564

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E10

<400> 564

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 gcaaaagctt caggctggaa accgccagct ttatcgattg aagggttgc taatgcctca 120
 ggttcgcaag cattgtatcc tacgcaaggg agcacaaaat cttcagggtg tcagcgatca 180
 agttcatccc cagatgggaa tagaaaagcc ccagggtggc aacagtcaag tacatcaccg 240
 gtgggggagtg gaaaagctca tggctggcaa cgatcagggt cttttaccca gggtggtaca 300
 aaagctgcag gttggcaacc ctctggttct tctacagatc ggagtgc aaa agttgatggc 360
 tggcaacgaa caagttcatc tccggaggga aacagaaaag cttcaggctg gcattcatca 420
 ggtcgtgaga gctcaaagat cacatat 447

<210> 565

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E11

<400> 565

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 ttcgtcgaac acgccaagaa gttcactcag gtcgtcttcc tgaagggtga cgtggacgaa 180
 gtgaaagaag tcaccgcggc ctacagggtc gaggcgatgc cgaccttcca cttcgtcaag 240
 aacggcaaga cggtcgac catcgtgggt gccaggaagg acgagctcct ggccctgatc 300

gagaagcatg ccgcgcctgc gcctgcgact gcgtctgcct aaatgagatc agatcaatcg 360
tcgccgtcaa taaaggccag cacgtatggc ttgaaatggt gtcgttatca gtttctg 417

<210> 566

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E12

<400> 566

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acagtgcaaa ccatcgcaac gcaacagcaa caacaattcc taccagcact gagccaccta 120
gccatggtga accctgccgc ctacttgcaa cagcagttgc ttgcatcaaa cccacttgct 180
ctggcaaacg tagttgcaaa ccagccacaa caacagctgc aacagtttct gccagcgctc 240
agtcaactag ccatggtgaa cctgccgcc tacctacaac agcaacaact gctttcatct 300
agcccgctcg ctgtggccaa tgcacctaca tacctgcaac aacaattggt gcaacagatt 360
gtaccagctc tgactcagct agttgtggca aaccctgctg cctacttgca acagctgctt 420
ccattcaacc aactgac 437

<210> 567

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C9

<400> 567

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gtcggagagg aatcgcaaag agggccgtct catccgagtt aaggaagcca tggagcacia 120
ggaggctggg tgccaggccc ccgagggacc catcctctgc atcaataact gtggcttctt 180
cggcagcgcg gcgaccatga acatgtgctc caagtgccac aaggagatga taacgaagca 240
ggatcaggcc aagctggctg cctcctctat cgacagcatc gtgaacggca gcgacgccgt 300
catggagccg gttgttgctg gcagcaacac ggtagtagct gttgcccaag ttgagttgca 360
aacaatgaac gtgcagcaac ccgctgatgt tgccggaccc agcgaggggg tggcggcgat 420

<210> 568
 <211> 445
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-B3

 <400> 568

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 ccttggtgctg cttgggtcttt ctgcaagtgt tgctaccgca accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtgt cttcaatgtg 180
 tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcactcttacc 240
 attatcacc ttgttctctc aacaaccgtc agccctatta cagcagttac ctttggtcca 300
 tttggtggca caaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcatactct cagcaacatc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
 tgcttatttg caacaacaat tacca 445

<210> 569
 <211> 462
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-B4

 <400> 569

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 ttatgcttcc ttgtgctggg ttgtctttct gcaagtattg ctacctcaac cattttccca 120
 caatgctcac aagctcctat agcttccctt cttccttcat acctctcacc aaacgtgtct 180
 tcaatttggt aaaccccaat tgttcaaccc taccttatcc aacaagcaat tccaacaagc 240
 atcttaccat tatcaacctt gttactccaa caaccgtaa cctattaca acaattacct 300
 ttggtccatt ttgtggcaca aaacattaat gcacaacaac taccacaact tgtgctaaca 360
 aaccttactt catactctta acaacatcaa tttctttcat tcaaccaact tgcttcattg 420
 aactctactg cttattttca acaacaatta ccattcaatc at 462

<210> 570
 <211> 378
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-B5

<400> 570

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 aatggaaaac aactacgcat gccaccacc cagcaaggga aacctgatca cagtcttgag 120
 catcgatggg ggtgggggtca agggcgctcat ccttgcctacc ttccttgcat tccttgagtc 180
 taaactgcag gtaaactcta cacgctcatt ggtccttgag cctaaatgca tatatacatg 240
 caagtttgag tgccatttat tcgttggtgt tcttctacat tttcctagga gcttgatggg 300
 agcagcgcg ccatagctaa ctactttgat gtcacgctg gaacaagcac aggtggactt 360
 attgctgcaa tgctggca 378

<210> 571
 <211> 466
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-B6

<400> 571

aagatattca gggaccaggg gaagaacatt catgaatata agggccctag ggaggctggg 60
 ggcgggtgtgg attacttgaa gaagcagggt ggccctgcgt ccaaggagat caagtcacca 120
 gaagatgcga cggcccttat cgatgacaag aagatctaca ttgttggtat cttcgctgaa 180
 ttcagcggca ccgaatttac aaacttcatg aaggctgcag agaagctgag gtctgactac 240
 gactttggcc acactttgca tgccaaccac cttccacgtg gtgatgcagc agtggaacgg 300
 ccattgggtca ggctgctgaa gccatttgat gagcttggtg ttgacagcaa ggattttgat 360
 gtcgctgcac tgatgaagtt tattgatgct agcaccatcc ctagagttgt cacttttgac 420
 aagaaccctg acaaccaccc atacctcatg aaattcttcc aaagct 466

<210> 572
 <211> 349
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-B7
 <400> 572

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 cggtttcgtg ggtgagcgga tcgagatggc ggcgtcggat gttgagtacc gctgcttcgt 120
 cggcggcctc gcctgggcca cggacgacca ctacctccac aacgccttca gcacctacgg 180
 cgaagtcttc gaggttcaaga tcctcctcga tcgggagacg caaaagtccc gcggcttcgg 240
 ctctgtcacc ttcttctactg aggacgcgat tcggaacgcc atcgaaggca tgaaccgcaa 300
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<210> 573
 <211> 434
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-B9
 <400> 573

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 caatgtctgc aagctcctat agcttccctt ctcccccggt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca acagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420
 aactctgctt ctta 434

<210> 574
 <211> 430
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C11
 <400> 574

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 agtagtggcg accgccgtgg tggccttggt gctgctggcg gcggcggcta cctcggaggc 180
 ggccatcagc tgcgggcagg tggcgtcggc catcgcgccc tgcctctcct acgcgcgcgg 240
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 ccgcaccacc gtcgaccgcc gcgccgtctg caactgcctc aagaacgccg tcgccggcgt 360
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 ctacaccatc 430

<210> 575

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C12

<400> 575

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 accagcagcc gcagctgcag gaggagatga acgactctgc cggcggcggc ctcaggctgc 180
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 agccatggga cctcccagac aaggcgaaga tgggcgagaa agagtggtag ttcttctacc 360
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<210> 576

<211> 200

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C2

<400> 576

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ctgggtccgg tgaccatggc gaccagatc agcaagaaga agaagttcgt cagcgacggc 120
 gtgttctacg ccgagctcaa tgagatgctg acgcgggagc tcgcgaggga cggctactcc 180
 cgcgtggagg tgcgtgtcac 200

<210> 577
 <211> 452
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-C3
 <400> 577

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 tatgcctctt tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
 aatgctcact tgctcctagt gccattattc cacagttcct tctccagtt acttcaatgg 180
 gcttcgaaca ccagctgtg caagcctaca tgctacaaca agcgcttgcc gccagcgtct 240
 tacaacaacc aattgcccaa ttacaacaac aatccttggc acatctaacc atacaaacca 300
 tcgcaacgca tcagcaacaa caatttctac cagcactgag ccaactagct gtggtgaacc 360
 ctgtcgcta cttgcaacag caattgcttg cattcaaccc acttgctctg gcaaacaatag 420
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<210> 578
 <211> 429
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-C4
 <400> 578

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 tategctctg tgctcttcgc gccctttacg tgagctcatc acatgcgttc attattccac 120
 agtgctcact tgctcctagt gccattattc cacagttact tctacagtt acttcaatga 180
 gcttcgaaca cccaactggt caagccttct agctacaaca agctcttgcc accagcctct 240
 aacaacatcc aattgcccaa ttacaacaac attccttggc tcatctaacc atacaaacta 300
 tcgcaactca tcaacgtcaa caatttctac cagcactgag ccaactagct taagcgaacc 360

ctgtctgcta attgcaacag catattcttg cattcaaccc actttctctt gcaaacatag 420
gtgcataacc 429

<210> 579
<211> 400
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C5

<400> 579

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acagtgaacc ctgctgctta ttggaagcaa caactattac catttagcca gctagctact 120
gcctactatg agcaacaaca acttcttaca tttaaccaat tggacgcact gaacctcact 180
gcttatttgc agcaccaaact actactggca tttaacgagc tagctgcaac aagtcattgct 240
tccttcttga cacaggaaca gctgctggct ttctacaagc agtttgcgga taaccccgaa 300
acctctttac aactacaaca attgctggcc tttgtccaac ttgatttgac aaaccaaca 360
accttctacc aacaacacat caatgggtggg gccctatttt 400

<210> 580
<211> 401
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C6

<400> 580

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ccggggctgc tgaaatagct gctaaaaggt gactaccttt tcttcttctt ccccggaac 120
atcttgtagg gacgagatgt ggttctgtga ctgttgccgt gtacggagac gaggacaagc 180
cagcgcttat aacgtaccgc gatgtagctc tgaactacat gtccgtgttc caaggattct 240
tcttctgccc ggaagtggcg tctttgctgc tacacaactt ctgcgtctac cacaccaatc 300
cccatgggca cgaggagtcc tacagatggg agcagctaca atgtcgtcag atgtgccggg 360
gccatctgtt gctgatctcg ctgatcaagt tgcaaatgtg c 401

<210> 581

<211> 297
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-C8

<400> 581

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 actcgtgata gagatctacg agatgagaag catcaccata gagaccgtga gaggactcgg 180
 gatagggaga gaggaacgga ccgtgagcga taccacggac gtgaccgga gcatgatcgt 240
 catgacttgg tcctagatcg tggctctggac tatgatagag aaagggaccg tggtcgg 297

<210> 582
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-B2

<400> 582

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 aatgctcact tgctccgagt gccattattc cacagttcct ccatccagtt acttcaatgg 180
 gcttcgaaca cccaactgtg caagcctata ggctacaaca agcgcttgca gcgaacgttt 240
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 tcgcaacgca gcagcaacaa gcactgagcc acctagccgt ggtgaaccct atcggctact 360
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<210> 583
 <211> 455
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-049-Q1-K1-H7

<400> 583

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ctcaatactc acaagctcct atagctgccc ttcttcccc atacctcca tcaatgaccg 180
ctttagtatg tgaaaacca gcccttcaac cctacaggat ccagcaagca atcgcaacaa 240
gcaacttacc tttatcacac ctgttctttc aacaatcgcc agccctatct ttggtgcagt 300
cattggtaca aaccatcagg gcagaacagt tgcagcaact cgtgctacca gtgatcagcc 360
aagtagctct ggcaaaccct tccccctact ctgagcaaca acaatttctt ccattcaacc 420
aactgtctat actgaaccct gctgcttatt tgcag 455

<210> 584
<211> 233
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-H8
<400> 584

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ccctcaattc tcgcaagcta atgtagctac cctgaatacc ccataccttc catccatgat 180
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<210> 585
<211> 434
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-049-Q1-K1-H9
<400> 585

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tgctcacaag ctcttatagc ttcccttctt ccccatatac ttccatcaat tatagcttca 180
gtatgtgaaa acccagctct tcaaccatat aggttcaac aagcaatcg agcaagcaac 240
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gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat caaccaagta 360
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<210> 586

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A1

<400> 586

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agtgtcact tgctcctagt gccagtattc cacagttcct ccaaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcaagcgcct 240
tacaacaacc aattgccc aa ttgcaacacc aatccttggc acatttaacc ttacaaacca 300
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<210> 587

<211> 349

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A10

<400> 587

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caatgtctcg aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
atcttacctt tatcaccctt ggtcctccaa caatcatcag cctattaca tcagttacct 300
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<210> 588

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A11

<400> 588

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cgagagaaag agaagagagg aggatctttt gttcgtgaaa aatattggag gcggagggaa   180
ggtgaaggag ggggatcggg gatgaacgtg ttccggctgg cgggggacat gaccacctc   240
ctcagcgtgg tagtgctgct cctcaagatc cataccatca agtcctgcgc aggcataatc   300
ctgaagacac aggagctgta tgcacttggt ttgcagcac ggtacctgga cctgtttggt   360
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<210> 589

<211> 306

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A12

<400> 589

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gcaagctact ataactaacc ttcttcccc gtacctctca ccaactgtat cttcagtata   180
tgaaaaccca attcttcaac catacacgat ccaacactca atcgcaactt gcattctacc   240
tttatcacc tagttcctcc aacaatcatc aatcctatta caacatttac attcgtatca   300
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<210> 590

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A2

<400> 590

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ctcgcaagct cctatagctt cccttcttcc cccgtacctg taaccagcgg tgtcttcggg 180
atgtggaaaa cccaattttt aaaccttcca gaaccaaca ggcattacca gctggcattt 240
aaccttaata accctgggtc ctccaccatt attcaccctt ttaccttaat tacccttagc 300
gcctttaatg gcaccaaaca ttaaggcaca accacctcca caacctgggc tatcaaaact 360
tg 362

<210> 591

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A4

<400> 591

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agaagggcgc ggtcggtcgc aaggccggcg ggccgaggaa gaagtcgggtg actaggtccg 180
tcaagggccg gctgcagttt cccgtcggtc gcatcgggcg gtacctgaag aagggccggt 240
ccgcgcatcg cgtcgggaacg agcgcccccg tctacctggc cgtcgtcctc aagtacttgg 300
ccgccgaggt gctggagctg gccggcaacg ctgccaaagg 339

<210> 592

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A5

<400> 592

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gatgacgagc aagaacggat tgaagagaaa aaaaggatca cggaacggtt ctaccccgcc 180
cccccatct atggaaaatc ttctggggaa acccctaggg gcttccactc caaaccttgc 240

ttagccatt cctctttctt caataaagga ccttgatcaa ggtggggaat aagggaagta 300
gcacaccgtc aaccttaatt ttcataatac ccttgaccag gaccaaccat gattcaatta 360
aaa 363

<210> 593
<211> 119
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-A6
<400> 593

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<210> 594
<211> 113
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-A7
<400> 594

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tatgggtctcc ttatgctcct tgggtcttct tcaagtgctg catactgcga cca 113

<210> 595
<211> 452
<212> DNA
<213> Zea mays
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<400> 595

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ctatctgccg tcgcagcagc agtcgcagcc atggcaatac cccactcaac caccgcagct 240
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ccagtgcgtc gaggctcctga ggcaccagtg cagccccggca gcgacgccct acggctcgcc 360
acagtgccag gcgctgcaac agcagtgctg tcaccagatc aggcaggtgg agccgctgca 420
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<210> 596

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-A9

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caatgctcac aagctcctat agcttacctt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcacgc 240
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ttggtgcatt tgttggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg actactctca gcaacagcag tttcttacat tcaaccaact ggctgcattg 420
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<210> 597

<211> 319

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-B1

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ctcgcaagct cctatagctt cccttcttac ccgtacctc tcaccagcgg tgtcttccgt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
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gcatttattg gcacaaaac 319

<210> 598
 <211> 429
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-050-Q1-K1-B10

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 aatgctcact tgctccaagt tccattatta cacagttcct cccaccagtt acttcaatgg 180
 gcttcgaaca cccagctgtg caagcctata ggctacaaca agcaattgcy gcgagcgtct 240
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 tcgcaacgca tcagcaacaa caattcctac cagcactgag ccacctagcc atggtgaacc 360
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<210> 599
 <211> 420
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-B11

 <400> 599

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 aagcgcttgc ggcgagcgtc ttacatcaac caattgcca attacaacaa cgatccttgg 180
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<212> DNA
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 <223> Clone ID: LIB3061-049-Q1-K1-H6

<400> 601

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 ccaacaagca atcgagcga gcaacatacc tttatcacc ttgttggttc aacaatcgcc 180
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 actattacca ttcagccagc tagctactgc ctactctcag caacaacaac ttcttccatt 420
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<210> 602
 <211> 402
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 <213> Zea mays
 <223> unsure at all n locations
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<210> 603

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-H2

<400> 603

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ttccacagtg ctacttgct cctagtcca ttattccaca gtccctccca ccagttactt 180
caatgggctt cgaacattca gccgtgcaag cctacaagct acaactagcg cttgcggcga 240
gcgccttaac acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac 300
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<210> 604

<211> 206

<212> DNA

<213> Zea mays

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ttttgattt cttatgagtt atagttcaat aataaagttt tttgtctgat gtttgtggct 180

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206

<210> 605

<211> 406

<212> DNA

<213> Zea mays

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cctcaagctg actgtatggc tggtagaggag taaccgcctc cgtgaagcat ggacccctgc 180
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gacaatgctg ctgctgctgt gtgtgtgtgt tttgagatta agacaatgct gctgtgtttt 360
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<210> 606

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-H5

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gcaccctatc gacggaggtg ccatctcttc gactacatct gagatgtact cgattgtggc 360
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<210> 607

<211> 434

<212> DNA

<213> Zea mays
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 aatgaacaag aacaagaagc ttgttaagag gcttgccaag aagtaccatg ctttcttggc 360
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 aagttcccga ccct 434

<210> 608
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 <212> DNA
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 <400> 608

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 agggcagaac agttgcagca actcgtgcta ccagtgatca gccaaagtagc tctggcaaac 360
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<210> 609
 <211> 415
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-H9

<400> 609

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ggtgcatttg ttggcacaaa acatcaaggc acaacaacta caacaacttg tgctaggaaa 360
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<210> 610

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A1

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acaacacatc attggcggtg ccctctttta gattgcttat tagttgtaat tcaataatga 360
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<210> 611

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A10

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<210> 612
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A11

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 gcggcgggcag cagtggcggc ggtggtgcga acgtggctag cgctcgtcacc ggctccttct 300
 tcaacggcat caagagccag gccgggagcg ggtgcgaggg caagaacttc tacacccgga 360
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<210> 613
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A12

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 cacaatgctc acaacaatac ctctctccgg tgacagccgc gggatttcaa taccacaacta 180

tacaatccta catggtacaa gaagccatcc aagcaagcat cttacggtca ttaacattaa 240
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<210> 614
 <211> 385
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 <223> unsure at all n locations
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 ttccacaatg ctacttgct cctagtgcc ttataccaca gttcctccga ccagttactt 180
 caatgggctt cgaacaccta gctgtgcaag cctacaggct acaacaagcg cttgcggcga 240
 gcgtcttaca acaaccaatt aaccaattgc aacaacaatc cttggcacat ctaaccatac 300
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 <213> Zea mays
 <223> Clone ID: LIB3061-046-Q1-K1-A3
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 gggcttcgaa catccagccg tgcaagccta caggctacaa ctacgcttg cggcgagcgc 240
 cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa cctacaaac 300
 cattgcaacg caacaacaac aacaacagtt tctgcatca ctgagccacc tagccgtggg 360
 gaaccctgtc acctacttgc aacagcagct gcttgcaccc aaccacttg ctctggcgaa 420

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443

<210> 616

<211> 390

<212> DNA

<213> Zea mays

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<400> 616

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tccctctcgg ttctacaccg tctctccag cctcgccccg gtgcaccgca gatcagggga 180
cgtagctcgc ccgcgcgcac cgcagatcag gcaacgtacg tgcgccgccg gagatcgga 240
ttctgtatatt ttcttccgt gtcgcgggt gctacggcga tggcgggcg cgaggagcagg 300
cgcgccggcg cggcggagca gccgaagatc ggcagcgga acgtcttcgc cgcgctcgag 360
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<210> 617

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-046-Q1-K1-A5

<400> 617

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taagacgttc aagaaaccaa ggctcctta tgagaaggag cgtcttgatg ctgaactgaa 180
gctggttggt gagtatgggc tgagggtcaa gcgtgagctt tggaggggtcc agtatgcact 240
gagcaggatc cgtaatgctg caaggcactt gtcacccctt gacgagaaga acccccgtcg 300
tatctttgag ggtgaggcac tttttcgccg catgaaccgc tatgggctgc ttgctgaggg 360
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tcaaacactt gtcttcaagc tggcatggc 449

<210> 618
 <211> 415
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-H11

<400> 618

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tctatgttct tgctatcgcc acaagtgtga ctggactcct ggagaagtca atctttatgc 180
agagcgccaa aatgattgag cgcttctcca cagaagccat gtttatgaac tccctgggaa 240
tgctgctggg gttgttgagc agccttggtt ttcttgcaact cgtagtcct ggaccagca 300
tgatcgacac atacagaggc tcttctgagt gagaggaaat gattacagcc tagtttctta 360
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<210> 619
 <211> 328
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-F6

<400> 619

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aaagaaaaag tgatgcagta tcattgtgtt gttttttgtt ctgttcgtca tcatacacta 180
agcttctgtg aaaaagaaaa agtcttggac gttgttggtt tggtgccatt gtgccatttt 240
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ctaagaaaaa atactagact aataaaaa 328

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<210> 620
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-F7

<400> 620

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 caaggagctc gacggccgta acatcacctg taaccaggcc cagtcccgtg gcggtggcgg 180
 tggcggcggt ggctacggcg gcggtcgcgg cggcggcggc tatggtggcg ggcgccgtga 240
 cggcggttat ggcgcggtg gcggctacgg cggtcggcgc gaggggtggtg gcggcggcta 300
 cggaggcggt ggcggtacg gcggtcggcg cgagggtggt ggtggcggct acggcggcgg 360
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 ctatctata 429

<210> 621
 <211> 262
 <212> DNA
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 <223> Clone ID: LIB3061-045-Q1-K1-F8
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 ctgctgggta tttacaggca ccaccaatta caaccattca gccagctagc tactgcctac 180
 tctcagcaac aacaatttct tccatttaac caattgcccg cactgaaccc cgctgcttat 240
 ttgcagcaga aaatactact gc 262

<210> 622
 <211> 353
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-045-Q1-K1-F9
 <400> 622

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 gagccctgct gccttcttac tgcagcaaca gttgcttcca ttccatttac aagttgtggc 180
 aaacattgct gctttcttgc aacaacaaca acaattgctg ccattttacc cacaggttgt 240

gggaaacatt aacgccttct tgcaacagca acagttgcta ccattctacc cacaggatgt 300
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<210> 623
 <211> 413
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-045-Q1-K1-G1

<400> 623

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 gccctgggtg gtcgtcgacg ggcagcccct gctagaggat tacgagaatt tcgaggctta 180
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 caagcttgcg actgctgaag atganggtgg ggagcataag gtgggagaat actagtacgt 360
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<210> 624
 <211> 418
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G11

<400> 624

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 gccccggcct cagcctcatc ccagccaca cccatgcccg tgccaacagc cgcattccaag 180
 cccgtgccag ctgcagggaa cctgcggcgt tggcagcacc ccgatcctgg gccagtgcgt 240
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 gtcgttgccg cagcagtgtt gccagcagct caggcaagtg gagccgcagc accggtacca 360
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<210> 625
 <211> 415
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G12

<400> 625

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acaaccaatt gcccaattac aacaacaatc cttggcacat ctaaccatac aaaccatcgc 180
aacgcagcag caacaagcac tgagccacct agccgtgggtg aaccctatcg cctacttgca 240
acaacagctg cttgcatcca acccacttgc tttggcaaac gtagctgcat accaacaaca 300
acaacagttg caacagtttc taccagcgtc cagtcaacta gccatgggtga accctatcgc 360
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<210> 626
 <211> 270
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G2

<400> 626

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ctctgctgct tatttacagc agcaacaact actaccattc agccagctag ctgatgtgag 180
ccctgctgcc ttcttgacac aacaacagtt gttgccgttc tacctgcacg ctatgcctaa 240
cgctggcacc ctcttacaac tgcaacaatt 270
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<210> 627
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G3

<400> 627

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tgctcacaag ctctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca 180
atgtgtgaaa cccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc 240
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gtccatttgg tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgcat actctcagca acatcagttt cttccattca accaactggc tgcattgaac 420
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<210> 628

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G4

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ctcacttgct cctagtgcga ttattccaca gttcctccca ccagttactt caatgggctt 180
cgaacaccta gctgtgcaag ccaacatgca acaacaagcg cttgcggcga gcgtcttaca 240
acaaccaatt gcccaattgc aacaacaatc cttgccacat ctaacaatac aagccatcac 300
aacgcaacag caacaacagt tcctaccagc actgagccac ctagccatgg tga 353

<210> 629

<211> 455

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-045-Q1-K1-G5

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180

gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240
agcaacatac ctttatcgcc cttgttggtt caacaatcac cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacaacag ctgcagcaac ttgtgctacc tgggatcaac 360
ccagtaactc ttgccaaacc tttctcccta ctctcagcac caacaattnc ttccattcaa 420
ccaactgtct aactggacc ctgctgctta ttgac 455

<210> 630

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G7

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accatcaggg cacaacagct gcagcaactc gtgctacctg tgatcaacca agtagctctg 180
gcaaaccctt ctcctactc tcagcaacaa caatttcttc cattcaacca actgtctaca 240
ctgaaccctg ctgcttattt gcagcaacaa ctattaccat ttagccagct agctactgcc 300
tactctcagc aacaacaact tcttccattt aaccaattgg ccgcactgaa ccccgctgct 360
tatttgagc agcaaatact actgccattt agcgagctaa ctgcaacaag tcgtgctttc 420
ctcttgacac agcaacag 438

<210> 631

<211> 236

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-G8

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tttgaaagcc tacatattat tatttctcta attcaggagt ggtctgtgct gggagggaag 180
ggatctgtgg ggctgcagcc ccatccgggc tgagggttga aagatccggc cctttg 236

<210> 632
 <211> 413
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-045-Q1-K1-G9

 <400> 632

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 gcaagctcct atagctctcc ttcttaccct gtacctatca ccaacagtgt ctgcgatatg 180
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 attaatggca ccaaaccacc aggccccacc aactacaaca cctgttccta gcaaaccttg 360
 ctgcctactc taagaaccac aactttcttc cattcaacca cttcgggtcaa ttg 413

<210> 633
 <211> 414
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-045-Q1-K1-H1

 <400> 633

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 ccatcagttc ctcctccgcg gtgcccgctg acccgccgag caccagcagc agcgtcgccc 240
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 gnccacctgt acggcagcct gaccagcta ttcggctgcc tgccctcgag atctcgctgc 360
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<210> 634
 <211> 411
 <212> DNA

<213> Zea mays
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 <400> 634

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 gtacaaacca tcagggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
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<210> 635
 <211> 412
 <212> DNA
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 <223> Clone ID: LIB3061-045-Q1-K1-E12
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 acaaaccatc aaggcacagc agctgcagca actcgtgcta cctgtgatca accaagtagc 360
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<210> 636
 <211> 327
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 <400> 636

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agaaagcctt aaaactgcaa agaaggattt taccaagact gaggacgact taaagtctct 240
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cgtgaaggcc agcagtggtc cccgata 327

<210> 637

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-E5

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tgagactgcc agacccttct acccctaatac taaagattga tttgttggct gaaatttcaa 240
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aggttgatga atatctcaag aggccggaag gctcttcctt ttttaagtac ctgaacccaa 360
aattgctgct gcctcagaat gaagcaagtg ttgctgggac acgctacaac gtgcctctga 420
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<210> 638

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-E6

<400> 638

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180

tcaatgtgtg aaacccaat tgttcaaccc tacaggatcc aacaggcaat cgca^{ss}acaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtcccat ttggtggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 360
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<210> 639

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-E7

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tgccttctgt gtttaccagg atcttaatgt cactgacatt gcctgtgctg cccttaatgg 300
catcaagatg ggggacaaga ctcttactgt taggagggca aaccaaggag cttctcagcc 360
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<210> 640

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-E8

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acaagctcct atagcttccct ttcttcccc atacctctca ccagcgggtg cttcagtatg 180
tgaaaacca attcttcaac cctacaggat ccaacaggca atcgagcag gcattctacc 240
tttatcacc ttgttctctc aacaaccgtc agccctatta cagcagttac ctttgggtgca 300

tttgttgcca caaaacatca aggcacaaca actaccacaa cttgtgctag gaaaccttgc 360
 tgcctactct cagccacagc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
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<210> 641
 <211> 431
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 <213> Zea mays
 <223> unsure at all n locations
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 ggacaagatc ggcgagaggg tcgcagcgct ccagcagctc gtgtcaccgt tcggaaagac 180
 cgacacggct tctgtcctgc aggaggcgctc ggggtacatc aagtctctgc accagcagct 240
 ggaggctctg agtccccctt acatgcgcgc tcttcgggcc gctggcgctg cgcctgagga 300
 cccccagcgc tacagcctnc ggagccgcgg gctgtgcctg gtgccgggtg acctgacgct 360
 gcagctgacc cagagcaacg gggcccgacc tgtggggcgcc ggcgcacacg gncaggcgaa 420
 agtgaggact g 431

<210> 642
 <211> 411
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-045-Q1-K1-F10
 <400> 642

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 cactcatcg gtgcctcctc ggctgccgt ctcttctctt tctcgcgcc tccttctctg 180
 gccgtccgt ccgtcgacct cgacgtggtg ctccagcgag tgcaccgctc gaggccggac 240
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atcgcaggat acaaagtaaa gctcttctct caactgtcgc ctgcgggaaa gaacattctc 360
gagctcgggtg ttgggacaag gcctaacttc aaatactatg caagtgaaga t 411

<210> 643
<211> 416
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-F11

<400> 643

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caatgtcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcaatgtgtg aaaacccaat tggtcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag cctattaca gcagttacct 300
ttgggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgc 416

<210> 644
<211> 407
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-045-Q1-K1-F12

<400> 644

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gtacagggtat tagcggctac acaaatgcct gaagagccag ctggatgggt ccagggtaca 180
gcagactcta tcagaaaatt tatctgggta ctcgaggatt attacagtca caaatccatt 240
gacaacattg taatcttgag tggcgatcag ctttatcgga tgaattacat ggaacttggt 300
cagaaacatg tcgaggacga tgctgatatc actatatcat gtgctcctgt tgatgagagc 360
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<210> 645

<211> 325
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-045-Q1-K1-F2
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 gcatcagtgc agcccgacgg cgacgcccta ctgctgcct cagtgccagt cgttgccgca 180
 gcagtgttgc cagcagctca ggcaggtgga gccgcagcac cggtagcagg cgatcttcgg 240
 cttggctcctt cagtccattc tgcagcagca gccgcaaagc ggtaggtcg cggggctgtt 300
 ggccggcgcaa atagcgagc aactg 325

<210> 646
 <211> 369
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-045-Q1-K1-F3
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 cctggtggcc gtggccgtct gccaaaggca ggtagcaggc cagaggctca gggacctgca 180
 gtgctggcag gaggtccagg agagcccgct cgacgcgtgc cgccaggctc tcgaccggca 240
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 caggggcta 369

<210> 647
 <211> 368
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-045-Q1-K1-E11
 <400> 647

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aacaatggcg acagcgagtg agatcgccggc ggtgggcgta ataggcgcgg ggcagatggg 120
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ccccactgcc ctctcccgtg ccgtcgtctc catctccggc tccctacggc gctcgcgcgc 240
caaaggccag ctctcccaag ccgctgtcga agactcaata aagcggataa ggtgcgtctt 300
cggcgtgcag gatctcaagg acgccgatct tgtgatcgaa ggcgtcgtgg agaacgaaga 360
catcaaga 368

<210> 648
<211> 421
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-H11
<400> 648

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aactagctgc attgaactct gtttcttatt tgcaacaaca acaactacca ttcagccagc 180
tacctgctgc ctacccccaa caatttcttt cattcaacca actggcagca ttgaactctc 240
ctgcttattt acaacaacaa caactactaa cattcaacca actagcttgt gttaaccctt 300
cttacttctt tataacaacca caattgggtc ctttctaaca acaaccttgg cctaacgctt 360
gcaacctttt aacacttcaa ccattgcttg cattcaaccc aattgctttg accaaaccaa 420
c 421

<210> 649
<211> 439
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-H12
<400> 649

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gtcgttggt atttctgcaa gtgctgctac ggcgaccatt ttcccgaat gtcacaagc 120

tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggacaaaaac atcaaggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
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<210> 650

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-H2

<400> 650

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 cgccgagcag gcagagaggt acgaggaaat ggttgagttc atggagaagg tagcgaaaac 180
 tgttgactcg gaggagctca ctgtggagga gcgcaacctc ctgtctgttg catacaagaa 240
 cgtcattgga gcccgccgtg cctcatggcg catcatctcc tccatcgagc agaaggagga 300
 gggctgagggc aatgaggacc gtgtaacact catcaaggac taccgtggca agaatgaaac 360
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<210> 651

<211> 489

<212> DNA

<213> Zea mays

<223> unsure at all n locations

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 tcccagagagg cgaccctcgc cggagccaag gcggcagcgg tggcgactat cgctccgcg 180

atccccaccc tggccagcgt gcggatgctg ccatgggccca aggccaacat caacccccacc 240
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aagatcctgt cgctggcgag gcgccactcg ttcgagcaag ccctgagca cctcaagaac 360
acctncttcc agggcaccgg ccgtccccac ccagccttct tcaggccgtg agacgagacc 420
ttcgtccaga gctagctacc tacctctttt tccagtttgc caatgcaagc accaaatgcc 480
caccgatgc 489

<210> 652

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-H5

<400> 652

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gctcgcaagc tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg 180
tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240
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tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
ttgttgcta ctctcagcaa cagcagtttc ttccattcaa ccaactaagt tcattgaact 420
ctgcttctta ttgcaacaa caacaactac ca 452

<210> 653

<211> 336

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-H6

<400> 653

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gcccctgcgc tgctctagca tggcttgac ggcgctgact cctgactgac gacgatgatg 180

ggcgccaaca gcctgtaccc ctacgctgag tacctgaagc agccgtagtg catcccgatt 240
 cacgcttgat cactactact cctgcagcag tcatccgagc tccatgttcc agtcgctccg 300
 gcaacagtgc tgccagcagc cgatgaggat gatcga 336

<210> 654

<211> 459

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-H7

<400> 654

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 caaggatcta tactattgca atggccaaaa gctccccctt gcagctgctc aaattgggca 120
 agctttttaga aatgagatct cgccacgaca aggtcttctc cgagtgcgtg aattcacatt 180
 ggcagagatt gagcattttg tggaccctaa agacaaatca catccaaaat ttgttgatgt 240
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 actattgaag ctcggggaag cagttgcaaa gggaactgtt aataacgaga cacttggtta 360
 cttcattgga agggctctatc ttttctgac atgcttgagg attgataagg gtcggttgcg 420
 cttcaagcag catttaccta atgagatggc tcattatgc 459

<210> 655

<211> 242

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-H8

<400> 655

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 tacactacat tacactagca caagcaagca gctacacata cttgtecata tcacataaac 180
 gaaacagcat atataagaag atgtcccaac atctttgcac cacgcgag atcagggggc 240
 ct 242

<210> 656

<211> 128
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-H9
 <400> 656

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 tacaatac 128

<210> 657
 <211> 445
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-051-Q1-K1-A1
 <400> 657

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 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
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 aaccttgctg cctactctca gcaacagcag tttcttccat tcaccaact aactgcattg 420
 aactctgctt cttatttgca acaac 445

<210> 658
 <211> 427
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-051-Q1-K1-A10
 <400> 658

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 caaaacatca gggcacaaca actacaacaa ctctgtgctag caaaccttgc tgctactct 360
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 caacaac 427

<210> 659

<211> 366

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-A11

<400> 659

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 tgagtcggcg gaagccaaga ctgagtcgac tcacagcagt tgaagatgct tccgacatga 180
 tctaaactag ttgaattggc atgttaatta tgctgaatcg acggacaaac ttctaccttg 240
 tgccactggc ctatcccagt gacttgcctt aaaatcaaca ttgtgtcttt acatgcacat 300
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<210> 660

<211> 453

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-A2

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gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcatcttac 240
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atttgggtggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 360
ctgcatactc tcagcaacat cangttcttc catccacca acttgctgca ttgaactctg 420
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<210> 661

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-A3

<400> 661

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cgcgcccccgc gacggagagg tggaccgccc tgacgtgggc aagatgaagc acgggtgcca 180
gcattaccgg cggaggtgca agatcgtggc accgtgctgc aaccaggtgt tcccctgccg 240
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tgaaaaagta gtttgcctac tctgtgaaac aaaacagccg gtgtcacaag tgtgcataag 360
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<210> 662

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-A5

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caccttgtct ccgtttgctg gactcgcgtt tcacccactg gatgggtattc tgcaagcgat 240
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gttcttggag ggcgtgtgga cgacaaacat ccacgactgc attcacggca aggtatggcc 360
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<210> 663
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-H10
 <400> 663

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<210> 664
 <211> 454
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-050-Q1-K1-F7
 <400> 664

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 atcgcaagct tctatagctt acattcttca ccagtacctc tcaccagagg tgtattccct 180
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 gcatttattg gcacaaaaca tcaggtcaca acaactacaa caacttgtgc taacaaacct 360

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tactttcttat ttcaacaaca acacctacca ttca 454

<210> 665

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F8

<400> 665

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aaccttgggg gcataactct agtagaaaaa gggaaagaag ccaggatcta aggcaagggt 360
tttc 364

<210> 666

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F9

<400> 666

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aggacgcaa gaaggtgatc ctcaaggaca agccggacgc cgacatcgtg gtgctgcccc 180
tcggctccgt ggtgaccgcg gattatcgcc ctaaccgtgt cccgatcttc gtcgacatcg 240
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tgtgtgaatt ctactaatt aagtaatgca t 391

<210> 667
 <211> 451
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G1

<400> 667

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gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
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tgcttactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G10

<400> 668

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tacgacatcc actccccag gatcccgtcg gccgaggaga tcgccgaccg catcgacaag 240
atgctggccg tgctggacac caacatctc tgggtgaacc ccgactgcgg cctcaagacc 300
cgcaagtaca cggagggtcaa gcccgccctg accaacaatg tctccgctgc taagtcatt 360
cgcaccagc tcgccagcgc caagtgagca ctttttttg cttttttgt ttccgaggaa 420
ggcgtcgtcg atgcc 435
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<210> 669
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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G11

<400> 669

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gctgtgtctg ctgccagaca ccagcgtgtc atctaccgcc ttagtjctat atgccgactc 180
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tggggccagcg cgtcgagatg ctgaggcacc atgtgcagac cggcggctac tccgtacagc 360
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<210> 670

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G12

<400> 670

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caaggcacia caactacaac aacttggtgct aggaaacctt gctgcctact ctgagcaaca 360
gcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaaca 420
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<210> 671

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G2

<400> 671

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cgggtccacct gccaccgccg gtccatgtgc cgcgcgccgt tcatctgccg ccgccaccat 180
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gccaacagcc gcatccaagc ccgtgccagc tgcaggggaac ctgcggcggtt ggcagcacc 300
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<210> 672

<211> 330

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G4

<400> 672

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ccattattcc acaatgctca cttgctccta gttccattat tccacagttc ctcccaccag 180
ttacttcaat ggccttcgaa caccagctg tgcaagccta taggctacaa caagcgattg 240
cggcaagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
caatacaaac caatcgaacg caacagcaac 330

<210> 673

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G5

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gagaggtgga ccgacgtgac atgtgcaaga tgaatcacgg gtgcgagcat taccggagga 180

ggtgcaagat cgtggcaccg tgctgaaacc agatgttccc ctgacgtcac tgccacaacg 240
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 gcctactatg tgtaacaaaa caaacggtgt cacaagtgtg cataacctgt ggagtcaata 360
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<210> 674

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G6

<400> 674

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 caatgtctgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cacagctggc 240
 atcttaacct taataacctt ggttcttcca ccattaatca gccttatacc ataagttacc 300
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<210> 675

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-G7

<400> 675

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 attccacaat gctcacttgc tccgagtgcc attattccac agttcctacc tccagttact 180
 tcaatgggct tcgaacaccc agctgtgcaa gcctataagc tacaacaagc gcttgctgcg 240
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caaaccatcg caacgcaaca acaacaagca ctgaaccaac tagccgtggt gaaacctatc 360
gactacttgc aacaacagct gcttgcatte aaccaattg ctttggcaaa cgtagcttca 420
taccaacaac aacaacagtt gcaac 445

<210> 676
<211> 331
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-G8
<400> 676

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gaggcccgct gcttatttgc agcagcaaat actactacca tttagccagc tagctgcagc 120
aaaccgtgct tccttcttga cacagcaaca gttgctgcct ttctaccagc agtttgccgc 180
taaccccgca accctcttac aactacaaca attgttgccc ttgtccaac ttgctttgac 240
agaccagcg gacttctaac caccacacat cattgggtggt gcgcctcttt aaaatggta 300
ttaactggaa tttcaatata aaagtttttg g 331

<210> 677
<211> 418
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-050-Q1-K1-G9
<400> 677

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tcogtgcgtg tcgtgctggt cctactcttc cgcggaggcc tcgcctacat attcaccgac 180
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gtcggctacg ttaacatcac ttcgtactac ctcatcgga tccctcttgg agcgtgctg 360
ggctacgcgc tggggcttca tgtgaagggc atctggatcg gcatgctgct cggaacgc 418

<210> 678
 <211> 246
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-H1

 <400> 678

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 ctcatagaac taagaagtta tattctcaat tatattgaga tcagatctgg gatgcgaact 180
 atctagaata agctgagata agacataagg ggcaatataa tatggtgatg ttgtcacttg 240
 aagcct 246

<210> 679
 <211> 464
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-F6

 <400> 679

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 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg gcattctacc 240
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 tttattggca caaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgccactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
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<210> 680
 <211> 406
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-E3

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gtttgcagct caccttcgac gtcggcgctca tgcctatctt cggccaccgg ctggccggcc 180
acgtgaagga ggagctgagg aggaactact tcaccatgga gaaaggctac aacagcttcc 240
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cgggtgctgac cggcatcctg gcggaaccgga ggccccggcg aaccgactac tacgacgacc 360
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<210> 681

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E4

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aagccatgag cagcaacatc atccacaaca acatcatcca cataaacaac aacatcaacc 240
accaccacaa catcaccagc agcagcaaca ccaacatcaa caagttcaca tgcaaccaca 300
aaaacatcag catcaacaag aagttcatgt tcaacaacaa caacaacaac cgtagtacca 360
acatcaacaa caacatcaac agtaccaaca acaacatcaa tgtgaaggcc aacaacaaca 420
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<210> 682

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E5

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agtgccttca tagcgtcggg ccggaagac gtgatcaaac actgcaccga ccataaaggg 180
 atcttacaac ccgtactggc aactgaaaaa aagggaccgg agctatgggt ttacccaaag 240
 cttaaaacta ggaccagttc catcacgctt gccattcgca tggacaacct ggaccttggtg 300
 ggcttcaaga ccccgggcag ggtgttgtgg gaagtccgca aggaccggga cacccaactt 360
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<210> 683

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E6

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 gcttcagtat gtgaaaaccc agctcttcag ccctataggg tccaacaagc aatcgagca 240
 agcaacatac ctttatcacc cttgttgttt caacaatcgc cagccctatc tttggtgcag 300
 tcattggtac aaaccatcag ggacagcag cttgagcaac tcgtgctacc tgtgatcaac 360
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<210> 684

<211> 460

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E8

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 aagctgcttt cataccagaa gttaatggag agttggatac tcagaatttt gagaatttcg 300

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catccaaaga tgcaaacttt gttgggtata cgtacaagaa ctttgaaatt gtgaatgatg 420
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<210> 685

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E9

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tggaataagg ttgggggttt cccaaaatta gaaagggcct atttagaatc ctaaagggct 360
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<210> 686

<211> 304

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F1

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atattcacac ttcacccgat cctcttatca cgatatacct ttctgcatcc tacttgctta 180
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accactttca atcttacaac taaaacaatc aacttccttt ttacaaaatt taccttaatt 300
acat 304

<210> 687
 <211> 330
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-050-Q1-K1-F10

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 aatcataact tgatatctat atatattcca 330

<210> 688
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 <212> DNA
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 <223> Clone ID: LIB3061-050-Q1-K1-F11

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<210> 689
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 <223> Clone ID: LIB3061-050-Q1-K1-F12

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<210> 690

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F2

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<210> 691

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F3

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<210> 692

<211> 269

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-F4

<400> 692

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<210> 693

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-050-Q1-K1-E2

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 atcgcccggt gaaggcgaag atcgacattt ggtcctacag cgcttccccg aaacagccat 420
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<210> 694

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-B8

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<210> 695

<211> 243

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-B9

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 caagctocta tagcttccct tctttcccca taccttccat caattatagc ttcagtatgt 180
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<210> 696
 <211> 371
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C1

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gaagctctgg agttgagga tgggtggctct gactatttgg ggaaggggtg ctccaaggct 240
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actgagattg ataacttcat ggttcaacaa cttgatggga caaaaaatga gtgggtgatgg 360
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<210> 697
 <211> 418
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C10

<400> 697

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gagattgtgg gtcctaataa caaaagactg gtccagcaac ttgttggcgg agctaatacgt 120
tccaggcagg aagaagcatt gaagaagaac aaaccaatca ttgttgtcgg aacacctggc 180
cgtattttctg aaattttctgc agcaggtgaa ctacacactc atggctgccg ttttcttgta 240
ctggatgaag tcgaccagct tctgtctttt aattaccgtg aagatatgca tagaattttg 300
gagcatgttg gaaggagacc tggaggcaca tctagggata ttcttggccc acttgcgaga 360
cgatctgagc gtcagactat cctggtttct gcaacaatac cattttcagt tatacgag 418
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<210> 698
 <211> 423
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C11

<400> 698

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cctccggatg ctccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacatcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaact 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgc 423

<210> 699

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C12

<400> 699

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gacagagaat ggaggcaagc atattaacac atttaatgcc acactcacag attgatatat 120
atgtccaagt tcttcaagct gatgggtgaa caaggtcagc ttgcataaat gctgcaacac 180
tagctcttgc agatgctggg attccaatgc gagacattgc cacatcatgt agtgctgggt 240
atctgtgttc tactccttg ctcgatctga attacctcga agacagtgtc ggggggttctg 300
atgtcactgt tggcattctt gcaaagatgg acaaagtgac tttgcttcag atggatgcaa 360
aattaccaat tgatacattt gaaaatgtaa tgggacttgc aata 404

<210> 700

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C2

<400> 700

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ctccttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccacaatgc 120
tcacaagctc ctatagcttc cctttcttcc cccgtacctc tcaccaacgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
acctttatca cccttgttcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaact 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tggttcttat ttgcaacaac aacaac 446

<210> 701

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C3

<400> 701

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tactctaagt accaccatca tcttccactt ctctatcgt tcaacctgta ccccgctgtt 120
aacctggatg attatatgct actaccattt ctactactat ctacacagct cctgcttcc 180
ttcttgactc agttactgac gctgcatctg tacctgcatt tctaccataa ccccgagct 240
atcttacaac tactacaact gctgccataa gtgcaactcg ctgtgacaga cgctgcgacc 300
tactaccagc aacacttcat tgatcacatc atctgtgata ccgtttatta gat 353

<210> 702

<211> 445

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-C4

<400> 702

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cagctcagga aggtctgccc cagccccagc tccccgtgct gctccagtga ggaaccgcc 120
acagccagca cgccaggctc ctctccagc tctgttcca gatgggtggtg gctccatgtt 180

tggaggaatt ggggtccacca ttgctcaagg tatggcgttt ggcacgggta gtgccatggc 240
acacagggct gttgatgctg tattaggtcc cgggaccatt cagcatgaga ctgttgccctc 300
agaagctgct gctgctgccc ctgccccctcc agtgatgaat gctgatgctt gcagcatcca 360
ttctaaggct ttncaagatt gtctcaacaa ctatggcagc gagatcagca attgccagtt 420
ctacctagac atgctgaacg agtgc 445

<210> 703

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C5

<400> 703

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aagataggtc cctccttat gctccttgct ctttctacat gtgttgctaa cgcgacaatt 120
ttccctcaat gtcacaagc tcctatagct tcccttctta ccccatacct tccatcaatt 180
atagcttcaa tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
gcatgcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttgggtg 300
cagtcattgg taaaaccat cagggcacia cagctgcagc aactcgtgct acctatgatc 360
aac 363

<210> 704

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-C6

<400> 704

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actaccagtc agccagctat ctgctgccta ccccgagcaa tttcttccat tcaaccaact 120
gacagcattg aactctctg cttatttaca gcagcaacaa ctactaccat tcagccagct 180
agctggtgtg agccctgcta cttcttgac acaaccacag ttgttgccgt tctaccagca 240
cgctgcgcct aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact 300

tgctttgaca aaccagcag cattctacca acaacccatc attggtggtg ccctctttta 360
gatttcttat gagttatagt tcaataataa agtttttgtc tgatgttggtg gcttcccaga 420
aataagaagt acatttct 438

<210> 705
<211> 373
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-044-Q1-K1-C7
<400> 705

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gatatttgcc atccttatgc tccttgctct ttctgcatgt gttgctaacg cgaccatttt 120
tcctcaatac tcacaagctc ctatagctgc ccttcttccc ccataccttc catcaatgac 180
cgcttttagta tgtgaaaacc cagcccttca accctacagg atccagcaag caatcgcaac 240
aagcaactta cctttatcac acctgttctt tcaacaatcg ccagccctat ctttggtgca 300
gtcattggta caaacatca gggcagaaca gttgcagcaa ctctgtgtac cagtgatcag 360
ccaagtagct ctg 373

<210> 706
<211> 346
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-044-Q1-K1-C8
<400> 706

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gaccattgtc ccgcaatgct cgcaagctcc tatagcttcc cttcttcccc cgtacctctc 120
accagcgggtg tcttcggtat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc 180
aatcgtagct ggcattctac ctttatcacc cttgttcttc caacaatcat cagccctatt 240
acaacagtta ctttggtgac atttattggc acataacatc agggcacaac aactacaaca 300
acttgtgcta gcaaaccttg ctgcctactc tcagcaacag cagttt 346

<210> 707

<211> 406
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D1

<400> 707

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cttactgaca aagatcccaa tgttacgggtc aaccctgatg aggttggttc tcttggggca 120
gctgtgcagg gtgggggtttt ggcaggagac gtgaaagatg tagttcttct ggatgttact 180
ccattatctc ttggtttga gacattggga ggagtgatga caaagattat cccaggaat 240
accacactgc caacctcaaa atcggaggta ttctcaacag ctgcagatgg acagacgagc 300
gttgagatta atgttctcca gggagaaaga gagtttgtca gggacaacaa gtccgttga 360
agcttccggt tggatgggat cctcctgca cctcgtggtg tccac 406

<210> 708
<211> 420
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-044-Q1-K1-D10

<400> 708

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gcttccaaga cattatccct ccttgcgctt cttgcccttt ttgtgagtgc aacaaatgcg 120
ttcattattc cacaatgctc actngctccg agtgccatta ttccacagtt cctccctgca 180
gttacttcaa tgggcttcga acaccagct gtgcaagcct ataggctaca acaagcgctt 240
gcggcgagcg tcttagaaca accaattgcc caattacaac aacaatcctt ggcacatcta 300
accatacaaa ccatcgcaac gcagcatcaa caagcactga gccacctagc cgtggtgaac 360
cctatcgctt acttgcaaca acagctgctt gcatccaacc cacttgcttt ggcaaacgta 420

<210> 709
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-D11

<400> 709

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tatgctcctt ggtatttctg caagtgtctgc tacggcgacc attttccgc aatgctcaca 120
agctcctata gcttcccttc tttccccgta cctctcacca gcggcgtctt cggtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
atcaccttg ttcctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
attggcacaa aacatcaagg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacagcagt ttcttgcatt caaccaacta gctgcattga actct 415

<210> 710

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A3

<400> 710

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atggcagcca aaatatatttg cctccttatg ctcttggta tttctgcaag tgctgctacg 120
gcgaccattt tcccgcaatg ctcaacagct cctatagctt cccttcttcc cccgtacctc 180
tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc aacctacag gatccaacag 240
gcaatcgcag ctggcatctt acctttatca cccttggtcc tccaacaatc atcagcccta 300
ttacagcagt tacctttggt gcatttattg gcacaaaaca tcagggcaca acaactacaa 360
caacttgtgc tagcaaact tgctgcctac tctcagcaac agcagtttc 409

<210> 711

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A4

<400> 711

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cttccaagac attatccctc cttgcgcttc ttgccctttt tgtgagtgc acaaatgcgt 120

tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctcccttcag 180
 ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcgcttg 240
 cggcgagcgt cttagaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
 ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
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<210> 712

<211> 272

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A6

<400> 712

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 ctaactcttg tgagccctac taccttcttg acacaaccac agctgttgcc attctaccat 120
 cacgttccgc ctaacgctgt caccctatta caactgcaac aattgctgac attcaaccaa 180
 cttgctttga caaaccctac actgttctac caacaacca tcattagtag taccctcttt 240
 tagatttctt atgagttata attcaataat aa 272

<210> 713

<211> 377

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-A7

<400> 713

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 cggggctgca gggcttgtac ggcgctggcg ccggcctgac gaagatgatg ggcgcggcg 180
 ggctgtaccc ctacgcggag tacctgaggc agccgcagtg cagcccgctg ggcgcggcg 240
 cctactacgc cgggtgtggg cagccgagcg ccatgttcca gccgctccgg caacagtgct 300
 gccagcagca gatgaggatg atggacgtgc agtccgtcgc gcagcagctg cagatgatga 360

tgcaactnga gcgtgcc

377

<210> 714

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A8

<400> 714

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agctcctata gcttcccttc ttccccata cctctcacca gcggtgtctt caatgtgtga 180
aaccccaatt gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt 240
atcacccttg ttctccaac aaccgtcagc cctattacag cagttacctt tgggtccatt 300
ggtggca 307

<210> 715

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A9

<400> 715

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actgaaccct gctgcttatt tgcagcaaca actattacca tttagccagc tagctactgc 120
ctactctcag caacaacaac ttcttcatt taaccaattg gcgcactga accccgctgc 180
ttatttgcag cagcaaatc tactgccatt tagcgagcta gctgcagcaa gtcgtgcttc 240
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cctcttacia ctacaacaat tggtgccctt tgtccaactt gctttgacaa acccagcagc 360
cttctaccaa caacacatca ttggtgggtgc cctcttttaa attgattatt agttgtaatt 420
caataataa 429

<210> 716

<211> 417

<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-B1
 <400> 716

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 cgggaagctc ggccgcccga tccggcgctcg tcgttcctcg gaacttcagg ctccctagaag 120
 agcttgaacg tggagagaag ggcattggag atgggacagt gagctatgga atggatgacg 180
 cagatgacat ctacatgcga tcatggactg gcactattat tggccctcat aataccgtcc 240
 atgagggctc catctaccag ctgaagttgt tctgcgacaa ggactaccct gagaagccac 300
 catcagttcg atttcattca agaataaact taacatgcgt taatcatgaa actggagtgg 360
 ttgacccgaa gaagttcagc gttctgggta actggcaacg tgattactca atggaat 417

<210> 717
 <211> 421
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-B10
 <400> 717

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 cacgggccct gacgcatctg cctcgccggc cgcgtcctcc cgccccagcc tcaagccggc 120
 cgcgggggatt acgcccgcga tgttcggcgc gccggtcacc gagcaggagg ccgaggatct 180
 gagcaagagt gaaaggaaat tttgctctgg ctcaaagttg aaagagatgg gtgggagtgg 240
 gatTTTTgct gagaagagtg aaaatggtga tgcagaggct tcaaatacctg ctaacaagac 300
 ttccttgagg atgtaccagc aaactgtgac tggaataagc cagatttcat ttagcgctga 360
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 t 421

<210> 718
 <211> 366
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-044-Q1-K1-B11

<400> 718

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gcaacaacag ttgttgcaac aacagttgct gcaacaaatt gtaccagctc ttactcagct 180
agctgtggca aaccctgctg cctacttgca acaactactt ccattcaacc aactgactgt 240
gtcgaactct gctgcgtacc tacaacagcg acaacagtta cttaatccac tagcgggtggc 300
taaccattg gtcgctgcct tctacagca gccacaatgg ctgccataca accagttctc 360
tttgat 366

<210> 719

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-B12

<400> 719

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cggtggcgcg gtcaggtgaa ccatggcgga ctccaaagcc acctcggcgg tcaccctccg 120
cacccgcaag ttcatgacca accgcctnct ggcccgcaag caattcgtgc ttgaggtgat 180
ccaccccggc cgcgccaacg tctccaaggc ggagttgaag gagaggcttg ccaaggcgta 240
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aaagtccact ggtttcggcc tcatctacga caacctcgag gctgccaaga agttcgagcc 360
gaaataccgn ctcacagga atggtcttgc tactaagggtt gagaagtccc gcaagc 416

<210> 720

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-B3

<400> 720

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atatgaacta cagagggtcg ccaacataag agaaaatatg aagaggatga gatctcttaa 240
tctccctgta cctagtacta tggttaatga agcaaattga tcacatcgag ccagcaagaa 300
acacaagaca aggaaattag catattcaac taatgggtcct actttgcat caaggactca 360
nagggatatt gttgacgata accatgagga tagtacttct gaaatagtta tggagaatct 420
aaatatccca tcaatgatga 440

<210> 721

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-B4

<400> 721

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cacttgctct ggcaaacata gttgcatacc aacaacaaca acaattgcaa cagtttctac 180
cagcgctcag tcaactagcc atggtgaacc ctgccgcta cctacaacag caacaactga 240
tttcatctag cctctcgtc gtggttaatg cacctacata cctgcaacaa cagttgctgc 300
aacagattgt accagctctg actcagctag ctgtggcaaa ccctgctgcc tacttgcaac 360
agctgcttcc attcaaccaa ctgactgtgt cgaactctgc tgcgtacct caacagcgac 420
aacaggtact taatccacta gcg 443

<210> 722

<211> 367

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-B5

<400> 722

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gcgctcgctg cgagcgccgc ctccagtaca agcggcggct gtggctgcc gaacaccacg 120

tttcatctac cgcctccggt ctatatgccg cctccgttct atctgccgcc gcagcagcag 180
ccgcagccat ggcaataccc cactcaacca ccgcagctaa gcccggtgcca gcagttcgga 240
tcctgcggcg tcggcagcgt cggcagcccg ttcttgggccc agtgcgtcga gttcctgagg 300
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cagtgt 367

<210> 723

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-044-Q1-K1-B6

<400> 723

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agacagggat cgccatgtcg gactcggagg agcaccactt cgaatcgaag gccgacgctg 120
gggcgtccaa gacctaccg cagcaggctg gcaccgtccg taagaacggc ttcacgtca 180
tcaagaaccg tccttgaag gttgtggagg tttctacctc caagactggg aagcatggcc 240
acgccaaatg ccactttgtc gccatagaca tattcaatgg gaaaaagctt gaagatattg 300
ttccttcac acacaactgt gacattccgc atgtgaaccg tactgagtat cagctgattg 360
atattttctga ggatggattt gtgagccttc ttacttcaga tggcaacact aaggatgatn 420
ctagactccc aactgat 437

<210> 724

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A11

<400> 724

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cttccttatg ctcttgggtc tttctgcaag tgctgtacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cttttcttcc cccatacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt 240

acctttatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
gcatttgttg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc 420
tgc 423

<210> 725
<211> 449
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G9

<400> 725

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ccttgctctc ctggcgctcg ctgcgagcgc cgctccagt acaagcggcg gctgtggctg 120
ccagacacca ccgtttcatc taccgcctcc gttctatatg ccgcctccgt tctatctgcc 180
gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg 240
ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt 300
cgagtctctg aggcaccagt gcagcccggc ggcgacgcc tacggctcgc cacagtgcc 360
ggcgctgcag cagcagtgtc gccaccagat caggcagggtg gagccgctgc accggtacca 420
ggcgacatac ggggtggtcc tgcaatcct 449

<210> 726
<211> 445
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-043-Q1-K1-H1

<400> 726

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gggcgactgg atccgggtgg agcctgtgcc cggcgcttc gtcgtcaact tcggatgcc 120
gcttgagggt gtgacgaacg ggatcttgaa gagcatcgag caccgggtga tgaccaacct 180
gggagtggcg cggacaacgg tggccacgtt catcatgccc accacggact gcctcatcgg 240

ccccgccgcc gagttcctca ggcagcacia cccgccgtgc taccgcaccc tcaccttcgg 300
 cgacttcaag cgcactctaca gcgttggtcaa gctggggtcg tcgctcaacc tcaccacaaa 360
 tctcaagacc gttcagaagg agctctgatt atccatcaaa ctttgtagcc tncctcgaat 420
 tggcgccgag gaactagcta gctag 445

<210> 727

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H10

<400> 727

gtaacacaag gctgaatttt tgttcgggtct agccgacccg acgatggcgt ccagcgacgg 60
 gaaagcactg ccaaccgcgg cctctgtggg cggcgccggc ggcagcagca ccgcgccgcc 120
 cgggcagccg accacggtag cgtccaagggt gctggacatg ggcgcggcgg cgatgcagtc 180
 gttgcgcccc gtgaagcagg cgaagcagca catgtgcacg ttcgcgctgt acgcgcacga 240
 cccgaagcgg caggtggaga ccgcaccact acgtctccgc ctcaaccagg acttcctcca 300
 gtgcgcgcgtc tatgactccg acaaagccga cgcgcgtctc atcggcgtgg agtacatcgt 360
 gtcgagggag atctttgact cgctgccggc ggaggagcag cggctgtggc actcgcacgc 420
 gcacgagatc aagtcaagcc tgtgga 446

<210> 728

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H11

<400> 728

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 ctaccgagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
 tcattattcc acagtgtca cttgctccta gtgccattat tccacagttc ctaccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300

ccctacaaac cattgcaacg caacaacaac aacaacaac

339

<210> 729

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H12

<400> 729

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tctcgtcgtg tgcctggctc tgtcagctgc cagcgcctct gcaatgcaga tgccctgccc 120
ctgcgcgggg ctgcagggt tgtacggcgc tggcgcgggc ctgacgacga tgatgggcgc 180
cggcgggctg taccctacg cggagtacct gaggcagccg cagtgcagcc cgctgggcgc 240
ggcgccttac tacgcgggt gtgggcagcc gagcgccatg ttccagccgc tccggcaaca 300
gtgctgccag cagcagatga ggatgatgga cgtgcaagcc gtcgcgcagc agctgcagat 360
gatgatgcag cttgagcgtg 380

<210> 730

<211> 441

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-H2

<400> 730

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tgcttaattg gttctaattg cattatttca cagattcttc caccacatac tctaattggc 180
ttgaaacatt cgnaccgcgc aagctataca ggttacatct agcgcttgcg gagagcgctt 240
tacaacaacc aatggcccaa ttgcaacaac aatccttggc acatctaacc atacaaacca 300
ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg 360
tgaaccctgt cacctacttg caacagcagc tgcttgcac caaccactt gctctggcga 420
acgtagctgc ataccagcaa c 441

<210> 731
 <211> 462
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H3

<400> 731

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ggcaatcgca acagggcatct taccattatc acccttggtc ctccaacaac cgtcagccct 120
attacagcag ttacctttgg tccatttggg ggcacaaaac atcagggcac acaactaca 180
acaacttggt ctagcaaacc ttgctgcata ctctcagcaa catcagtttc ttccattcaa 240
ccaactggct gcattgaact ctgctgctta tttgcaacaa caattaccat tcagccagct 300
agttgctgcc taccgccagc aatttcttcc attcaaccaa ctagcagcat tgaactctgc 360
tgcttattta cagcagcaac aactactacc attcagccag ctagctgatg tgagccctgc 420
tgccttcttg acacaacaac agttgttgcc gttctacctg ca 462
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<210> 732
 <211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H4

<400> 732

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gtcgcgaagc cggccgacgt gtgcgcgagg ttgcgcgccc ccgtcgagaa cctgcacgtt 60
cgccggcgag gcggccagtgc ccgagcactc ggggtccgtg cacggcgccct actcgtcggg 120
catcgccgct gccgaggaat gcaggaagcg gtcctctggc ctgaagggca tcccggacct 180
gggccaggtc gcggcggtggg aggagatggc cggagctgtg gtcctctctgc agatttgcag 240
gacctgagtg agattggatc actggctgcc tttggacatt ggagtggatc gtggatcgct 300
tcgctgctcc ctgatgggtg ccgagctctt ttttatattt accttacctt gaaggccgtt 360
gtgtcttgtc tggaataaat caagattgac tggcactgaa agtgtcatcg cgtcactctt 420
tcatacttat taataaatat c 441
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<210> 733
 <211> 436

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-H5
 <400> 733

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 cctgacgcat gtgcgtcgcc ggccgcgtcc tcccgcacca gcctcaagcc ggccgccggg 120
 attacgcctg cgatgttcgg cgcgccggtc accgagcagg aggccgagga tctgagcaag 180
 agtgaaagga aattttgctc cggatcgaag ttgaaagaga tgagtgggag tgggattttc 240
 gctgagaaga gtgaaaatgg tgactcagag gcttcaaata ctgataacaa gacttccttg 300
 aggatgtacc atcaaactgg gactggaata agccagattg catttactgc tgatggaagt 360
 gttacaccga agaagccgct gtcaatacct gacgtggcta agcagcgaga gcttattggg 420
 accctggaac atgctg 436

<210> 734
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H6
 <400> 734

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 aaggtggcga cgccgcaggt ggccgtcctc ctgctgctcc tcatcgctcg tgccgaggag 120
 gcggctccgt tggcggaggc gcgcgtgtgc cggcgccgga gcgcgggctt caaggggggtc 180
 tgcattgtccg accacaactg cagcacgtg tgcttgcatg aggtctacag cggcggcaac 240
 tgcgacggca tcatgcgcca gtgcaagtgc atcatggagt gctagctagc taggctctag 300
 gatctagcaa gctagctata tcggccttta attaaattaa taaggatcga cgtcgtggcc 360
 ggctcgctaaa tatgtactac tatacgttta cactacatgc aataatgcac cacatgtacg 420
 cgtacgcgcg ccgag 435

<210> 735
 <211> 443
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H7

<400> 735

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ggcttttctg caagtgttgc taccgcaacc attttccac aatgctcaca agctcctata 120
gcttccttcc tttccccata cctctcacca gcgggtgtctt caatgtgtga aaccccaatt 180
gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt atcacccttg 240
ttcctccaac aaccgtcagc cctattacag cagttacctt tgggccattt ggtggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc atactctcag 360
caacatcagt ttcttccatt caaccaactg gctgcattga actctgctgc ttatttgcaa 420
caacaattac cattcagcca gct 443

<210> 736

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-H8

<400> 736

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atcttcgccg gcaagcagct ggaggatggt cgcaccttgg ctgactacaa catccagaag 120
gagagcaccc tccatctggt gctccgcctg aggggtggta tgcagatctt tgtgaagacc 180
ttgactggca agaccataac cctggaggtt gagagctctg acaccatcga caacgtgaag 240
gctaagatcc aggacaagga ggggattccc ccagaccagc agcgtctgat cttcgccggc 300
aagcagctgg aggatggctc cacccttgca gactacaata tccagaagga gagcacctn 360
cacctggctg tccgtcttcg cgggtggttat taagccatca gtcgttgaaa cttgtgctgt 420
atctgggtat 430

<210> 737

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-H9

<400> 737

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tatgcgccctt gctctttctg catgtgttgc taacgcgaca attttccctc aatgctcaca 120
agctcctata gcttcccttc tccccccata ccttccatca atgatagctt cagtatgtga 180
aaaccagct cttcaaccct ataggctcca acaagcaatc gcagcaagca acataccttt 240
atcaccccttg tttcaacaat cgccagccct atctttgggtg cagtcattgg taaaaacat 300
caaagcacag cagctgcagc aactcgtgct acctgtgatc aaccaagtag ctctggcaaa 360
cctttctccc tactatcagc aacaacaatt tcttccattc aaccaactat ctacactgaa 420
ccctgctgct tatttgcagc aacaactatt a 451

<210> 738

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A1

<400> 738

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ctaccattca tccagctagc tgggtgtgagc cctgctacct tcttgacaca accacagttg 120
ttgccgttct accagcacgt tgcgcctaac gctggcacc ttttacaact gcaacaattg 180
ctgccattca accaacttgc tttgacaaac ccatcagtgt tctaccaaca acccatcatt 240
gggtggtgcc tcttttagat ctcttatgag ttatagttca ataatatagc tttgtatctg 300
atgttggtgg cttccaagaa ataagaaagt acatttctaa tagagctacc tgtgatcaag 360
ggc 363

<210> 739

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-044-Q1-K1-A10

<400> 739

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 ttctttcatt caacgaactg gcagcattga aactctctgc ttatttacag cagcaacaac 120
 tactaccatt cagccagcta gctgggtgtga gccctgctac cttcttgata caaccacagt 180
 tgttgccgtt ctaccagcac gctgcgccta acgctggcac cctcttataa ctgcaacaat 240
 tgctgccatt caaccaactt gctttgacaa acccagcagc gttctacaa caacccatca 300
 ttgggtgggtgc cctcttttag atttcttatg agttatagtt caataataaa gttttttgtc 360
 tgatgtttgt ggcttcccag aaataagaaa gtacatttct 400

<210> 740

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G8

<400> 740

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 ggtattttctg caagggtgc tacggcgacc attttccgc attgctcaca agctcctata 120
 gcttcccttc tttccccgta cctctcacca gcgggtgtctt cggtatgtga aaccaattt 180
 ttttaaccctt acgggtgcca acgggtattc gcagggtgtct tatcactatt acccccgttg 240
 ctctacaat catcatcccc attatagcag ttacccttgg tgcacatatt gtcgcaaaaa 300
 atcatggcgc aacaactact acaacttgtg ctagcaaacc atgctgccta ctcttatcaa 360
 caaccagttt ttttca 376

<210> 741

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H9

<400> 741

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 gctaacgcga caattttgcc tcaatgctca caagctccta tagcttccct ttttccccca 120
 taccttccat caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt 180

caacaagcaa tcgcagcaag caacatacct ttatcgccct tgttggttca acaatcacca 240
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gtgctacctg tgatcaacca agtagctctg gcaaaccctt ctccctactc tcagcaacaa 360
caatttcttc cattcaacca actgtctaca ctgaaccctg ctgcttattt gcagcaacaa 420
ctattaccat ttagccagct agctactgc 449

<210> 742

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G6

<400> 742

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tctgaatgga tagattttcc aagagggtccg caaagactta caagtggtaa gtttattcca 180
gagaataaca accgttatga caaatgtcgt ctaagatttg acctgcgtga tgcacactat 240
cttaggtatc atggtatgca agagtttgat caggcaatgc aacatcttca gcaaaaatat 300
gaattcatga catctgatca ccagtatata taccggaaac atg 343

<210> 743

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G7

<400> 743

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ttttgcttcc ttatgctcct tgggtctctct gcaagtgttg ctaccgcaac cattttccca 120
caatgctcac aagctcctat agcttccctt cttcccccat acctgtcacc agcgggtgtct 180
tcaatgtgtg aaaccccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctacaa caaccgtcag cctattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360

aaccttgctg catactctca gcaacatcaa tttcttccat tcaaccaact ggctgcattg 420

aacttttg 427

<210> 744

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-058-Q1-K1-G8

<400> 744

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cactggataa tgaagtgcac tgggtgtata tcaatctgac aactatgga accccaataa 120

tatgcactgc tgtataatta ggttctgtta ctgcattttg agattccttt tgtttgaaga 180

aatgctaaat ttgacatctc tcttttgttg acaacttagg tacgactacc atgctggttt 240

ttgggggtgc atgggacggg aatgtattgg cattgtccct ccatttatta gagaatttaa 300

ttatccgatg gccaaaaatt gtgccggtgg ggatacaagt gtttttgtca atggcagaga 360

actgcatcaa agagatttag atttacttgt aagaagaaga ctaccacnga catctggcat 420

gtcatattct aatg 434

<210> 745

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G9

<400> 745

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180

gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240

agcaacatac ctttatcgcc cttgttgttt caacaatcac cagccctatc tttggtgcag 300

tcattggtac aaaccatcag ggcaaacag ctgcagcaac tcgtgctacc tgtgatcaac 360

caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420

caactgtcta cactgaaccc tgctgcttat ttgc

454

<210> 746

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H1

<400> 746

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ccgacgtact ctcaggtgct gcggtgggac tgccccctgct gctgccgcgg gggcggcgga 120
ggggaggatg gccgcggcga cggcggcgga catggtgtgg gtgagggtgc ttgaggatgg 180
cgtgttccgg ttcgacgcgt cggaggcggc gcgcgcgcgc gcggggccca gcctctcgtt 240
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ggtatgcgaa gtcgcggcgg ggggatccca gaaggctcgtg ataaagcttc ctctggggac 360
atctttctat ggtactggag aagcgagtgg ccacttgaa cggactggga aacgagtttt 420
cacatggaat acagatg 437

<210> 747

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H10

<400> 747

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gggcttgtga attcctgatt cgattccatg agcaacaacg tggagacaag ataattgtgt 120
ttgctgataa tctgtttgca ctaactactt atgcgatgaa actgcgcaag ccaatgattt 180
ttggtgccac aagccatgct gagaggacaa gaattctcta ccaattcaag aacagtccag 240
aagtcaatac aatTTTTtctt tcaaaggctg gtgataactc gattgatatc ccagaagcta 300
atgttatcat acaaatatca tctcacgctg gttcgagacg tcaagaagct cagcgtctgg 360
gccgtattct cagagcatag ggtaaacc accaagataggat ggctggaaga aaagaagaat 420
acaatgcttt tttc 434

<210> 748
 <211> 210
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-H11

<400> 748

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 caccaggggc ttgcgccccg ttcacgatcc catgttcccg acgaattctt agagtgcact 120
 cttatccctt cagacacctt caaggctctt ggtgtagctt gccactctca ccaatcaagt 180
 tctcatgtct gatctcgaca ttcagatccc 210

<210> 749
 <211> 450
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-H12

<400> 749

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 ctccattatgc tccttggctt ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
 tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta 180
 tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcagc tggcatctta 240
 cctttatcac ccttggttct ccaacaatca tcagccctat tacaacagtt acctttggtg 300
 catttattgg cacaaaacat cagggcacaa caactacaac aacttgtgct agcaaactt 360
 gctgcctact ctgagcaaca gcagtttctt ccattcaacc aactaagttc attgaactct 420
 gcttcttatt tgcaacaaca acaactacca 450

<210> 750
 <211> 358
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-H2

<400> 750

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 cggccttgcg cttatgggcc tttgactgag cgcaacaaat gcgtccatta ttacacagtg 120
 ctcaattgat actagtgcc aattccaca gctactccga tcagttactt caatgggctt 180
 acaacattca gccgtgcaag cctacaggct acaactagcg cttgcagtga gctgcctaca 240
 acaaccaatt gcccaaagc aacaccaatg cttggcacat ctaaacttac taaccattgc 300
 aacgcagcaa ccacaccaac agtacctgcc ataactgac catctagccg tgggtgaac 358

<210> 751

<211> 417

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-058-Q1-K1-H3.

<400> 751

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 caaggagggc atccgcccgg accagcagcg gctcatcttc gccggcaagc agctcgagga 120
 cggctgcacc ctgcgcgact acaacatcca gaaggagtcc aactccacc tgggtgctccg 180
 cctccgcggc ggcgccaaga agcgtaagaa gaagacgtac accaagccca agaagatcaa 240
 gcacaagcac aagaaggcca agctctccgt gctgcagttc tataagggtgg acgacaccac 300
 tagcaagggtg acccgctccc gcaaggagtg cccaacaca gaggcgggcg cgggcgtctt 360
 catggccaac cacttcgacc gncactactg cggcaagtgc ggccttaact atgtcta 417

<210> 752

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H4

<400> 752

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 taggacaaca gttacgtttg gtgcatttat tggcacaaaa catcagggca caacaactac 120
 aacaacttgt gctagcaaac cttgctgcct actctcagca acagcagttt cttccattca 180

accaactagg ttcattgaac tctgcttctt atttgcaaca acaacaacta ccattcagcc 240
 agctacctgc tgcctacccc cagcaatttc ttccattcaa ccaactagca gcattgaact 300
 ctctgcttta ttacagcag caacaactac taccattcag ccagctagct ggtgtgagcc 360
 ctgctacctt cttgacacaa ccacagttgt tgcggttcta ccagcacgtt ggcctaacg 420
 ctggcaccct cttac 435

<210> 753

<211> 391

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-058-Q1-K1-H5

<400> 753

cacgtctccc agatctaact cccaaagact cacgaatccc agagagcctc catggcgacg 60
 caccgccact gcctcccact cctcctcgtg gccgccgccc tcgccctcgc cgccgtccct 120
 gctcgcgcgg cgctgggagg cgggcgcgcc ccgctgctgg gcgggtggaa cccgatccct 180
 gacgtgagcg actcgcatat ccaggagcta ggcgggtggg cgctggggca ggcgaagcac 240
 cagaagctgg ccgccgacgg gctgcggttc cgccgcgtgg tgcgcggcga gcagcaggtc 300
 gtgtccggga tgaactaccg cctctacgtc gacgccgncg accccgccgg ccgcaccgtg 360
 ccctacgtcg gcctcgtgta cgagcaagtc t 391

<210> 754

<211> 379

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H6

<400> 754

cggacgcgtg ggattttcag cattcaaaaa cacaccaagc gaagcgcact agcggcgagc 60
 taacaccaat ggctaccaag atattagccc tccttgcgct tcttgccctt ttagtgagcg 120
 caacaaatgc gttcattatt ccacagtgc cacttgctcc tagtgccatt attccacagt 180
 tcctcccacc agttacttca atgggcttcg aacatccagc cgtgcaagcc tacaggctac 240
 aactagcgct tgcggcgagc gccttacaac aaccaattgc ccaattgcaa caacaatcct 300

tggcacatct aaccctacaa accattgcaa cgcaacaaca acaacaacaa cagtttctgg 360
catcactgga ccacctaac 379

<210> 755

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H7

<400> 755

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ctttccctcc ttatgtcctt tgctctttct gcatgtgttg ctaacgcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aatgatagct 180
tcagtatgtg aaaaccagc tcttcaacc tataggtcc aacaagcaat cgcagcaagc 240
aacatacctt tatcaccctt gtttcaacaa tggccagccc tatctttggt gcagtcattg 300
gtacaaacca tcaaggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactatcag caacaacaat ttct 404

<210> 756

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-H8

<400> 756

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gcccctcttg cgcttggtgc gctttttgtg agcgcagcaa atgcgttcat tattccacaa 120
tgctcacttg ctctagtgc cattattcca cagttcctcc caccagttac ttcaatgggc 180
ttcgaacacc tagctgtgca agccaacatg caacaacaag cgcttgcggc gagcgtctta 240
caacaaccaa ttgccaatt gcaacaacaa tccttgccac atctaacaat acaagccatc 300
acaacgcaac agcaacaaca gttcctacca gactgagcc acctagccat ggtgaaccct 360
gccgcctact tgcaagagca gctgcttgca tccaaccac ttgctctggc gaacgtaatt 420
gcaaaccagc aacaacaac 439

<210> 757
 <211> 451
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-G5

<400> 757

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 tgctccttgg tctggctgca agtgtgcta ccgcaaccat tttcccacaa tgctcacaag 120
 ctcttatagc ttcctttctt ccccatacc tctcaccagc ggtgtcttca gtatgtgaaa 180
 acccaattct tcaaccctac aggatccaac aggcaatcgc agcaggcatc ttacctttat 240
 cacccttggt cctccaacaa ccgtcagccc tattacagca gttacctttg gtgcatttgt 300
 tggcacaaaa catcaaggca caacaactac aacaacttgt gctaggaaac cttgctgcct 360
 actctcagca acagcagttt cttccattca accaactggc tgcattgaac tctgctgctt 420
 atttgcaaca acaactacca ttcagtcagc t 451

<210> 758
 <211> 452
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F12

<400> 758

gaagaagaca aacgatatgc ggtgacacca gcccaatcat tgtacgggac tggctatgag 60
 gattatacaa gtgaaccgaa cagtccggga gattccaggt ccagggtga aaaaacacaa 120
 gaacctgtta ttgacatatt gcctcagctc tatgatattg gttccagtga cagcagagga 180
 ccttcaactg gaatgtggtc tcgaactctt cgactaaaga ttacaggaag agatgggac 240
 cagaaaattg atgccaggat acctgctggg ttcttagaag ggatgacaag aattattcca 300
 ggcttggctg gagctaatat tatggaaagg cttcggaatg ctctgttga tacagacaac 360
 cccagaatg gtcaaatact gcttgatttt gaggacgcca tgggagataa gatccaggtg 420
 tttattgcat gagctgatgg tgtatttgct ag 452

<210> 759
 <211> 348
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F2

<400> 759

gagcactagc cagggcggaac catatcgtct acctacaaca gcaacaactc ctttcaggga 60
 gggctctccc tatgggcaat gcacctacat acctgcaaca acacttgatg caacaacagt 120
 tgctgcaaca aactgcacca gctcttactc aactagctgt ggcaaact actgcctact 180
 cacaacaact actctcattc aaccaactaa ctgtgtcgaa ctctgctacg tacctacaac 240
 agcgataaca cataacttaat acaatatcag cagctaacac attgatcgca gccttcctac 300
 agcagcaaca aacgctgcca tacaaccagt tctctttgat caacccta 348

<210> 760
 <211> 400
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F3

<400> 760

cgtcagccta gcaattagct catcgactcc agattggaga actcgacacc atgaaggtgc 60
 tgatcgttgc ccttgctctc ctggcgctcg ctgcgagcgc cgcctccagt acaagcggcg 120
 gctgtggctg ccagacacca ccgtttcgtc taccgcctcc gttctatatg ccgcctccgt 180
 tctatctgcc gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc 240
 taagcccgtg ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg 300
 gccagtgcgt cgagttcctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc 360
 cacagtgccg ggcgctgcag cagcagtgct ggcaccagat 400

<210> 761
 <211> 390
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F4

<400> 761

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 tttaaaaaac ccaggggggc acggggttgg gtactatagg aacaaaccgc taccataaa 120
 cccgctgggt acagatttat gccattaac aaacccatgg gtatgaaaat tggcccaaac 180
 ccgtacccta atggggtaaa aacccatcgg gtttcgggta ccattgccca tctctagttg 240
 taacccttct tcattcgtca ccagggtctgc actggatggg gaatgtgggt tccttgctgc 300
 taacctttat gcaaagagtg tttttggcga ggactctttg gtgaacatca acattgagaa 360
 gcaacatgac ggcaagctca gtggctacat 390

<210> 762

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F5

<400> 762

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 ctggagccgg cgaggaggat aagaagcccg cgaggggcgg cgcccacatc aaccttaagg 120
 tcaagggaca ggatggcaat gaggtgttct ttcgcataaa gaggtccacc cagctgaaga 180
 agctgatgaa cgcctattgc gaccgccagt ctgtggacat gaatgccatt gcattcctgt 240
 ttgatggccg caggcttcgc ggcgagcaga cccctgatga gctggagatg gaggacggcg 300
 acgagatcga cgccatgctt caccagaccg gaagcagcgt tcctagcacc acctaaaagc 360
 agcagctgcg gagcctcggg ttgctctccg gctgcgtag tactaaacaa aaaggaaaaa 420

<210> 763

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F6

<400> 763

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 tttggtctaa gcgcacttgc tgaatgccat agacaagacg gcctgctcca caccgacttgt 120
 ggcacgcctg cttatgttgc cccagaggtg attaacagaa agggttatga tggtgcaaag 180

gctgacatat ggtcttgtgg ggtcatcctg tttgtgctat tggctgggta tcttccgttc 240
catgataaga acttgatgga catgtataag aagattgaga aagctgactt caaatgtcca 300
agttgggttt ctaccgatgt tcggaggcct ttgcaaagga ttcttgatcc taaccctagt 360
agaaggatct cggtggaaaa aatcatggag aatccatggg ttaagaaggg tttaggtgca 420
a 421

<210> 764

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F7

<400> 764

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tgctctcctg gcgctcgtg cgagcgccgc ctccagtaca agcggcggct gtggctgcca 120
gacaccaccg tttcatctac cgctccgtt ctatatgcg cctccgttct atctgccgcc 180
gcagcagcag ccgcagccat ggcaataccc cactcaacca ccgcagctaa gcccgtgcca 240
gcagttcgga tcctgcggcg tcggcagcgt cggcagcccg ttcttggggc agtgcgctga 300
gttcttgagg caccagtga gcccggcggc gacgccctac ggctcgccac agtgccaggc 360
gctgcagcag cagtgtgtcc accagatcag gcaagtggag ccgatgcacc ggtaccaggc 420
gacatacggg gt 432

<210> 765

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F8

<400> 765

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tccttatgct ccttgggtct tctgcaagt ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcatcttac 240

ctttatcacc cttgttcctc caacaatcat cagccctatt acatcagtta cctttggtgc 300
 atttattggc acaaaacatc aaggcacaac aactacaaca acttgtgcta gcaaacccttg 360
 ctgcctactc tcaacaacag 380

<210> 766
 <211> 445
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-F9
 <400> 766

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 tagccctcct tgcgcgtcct gcccttttag tgagcgcgaac aaatgcgttc attattccac 120
 agtgctcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
 gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgcct 240
 tacaacaacc aattgccc aa ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
 ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg 360
 tgaaccctgt cacctacttg caacagcagc tgcttgcaatt caaccactt gctctggcga 420
 acgtagctgc ataccagcaa caaca 445

<210> 767
 <211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-G1
 <400> 767

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 agagtttacc tccttatgct ccttgctcct tctacatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180
 gcttcaatat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240
 agcaacatac ctttatcgcc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
 tcattggtac aaaccatcag ggcaacaac ctgcagcaac tcgtgctacc tctgatcaac 360

caagtaacta tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
caactggcta cactg 435

<210> 768
<211> 98
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-058-Q1-K1-G10

<400> 768

aaaagattag agatctatat ttattactg agaagttgca catatcagta tgagaaatgt 60
ctcantaata aaagattaga gatctatatt ttaagttc 98

<210> 769
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G11

<400> 769

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gttgccctcg ctctcctggc tctcgctgcg agcgccacct ccacgcatac aagcggcggc 120
tgcggctgcc agccaccgcc gccggttcat ctaccgccgc cgggtgcatct gccacctccg 180
gttcacctgc cacctccggt gcatctccca ccgcccgtcc acctgccgcc gccgggtccac 240
ctgccaccgc cgggtccatgt gccgccgccg gttcatctgc cgcgccacc atgccactac 300
cctactcaac cgcgccggcc tcagcctcat cccagccac acccatgccc gtgccaacag 360
ccgcatccaa gcccgtgcca gctgcaggga acctgcggcg ttggcagcac cccgatcctg 420
ggccagtgcg tcgagtttc 439

<210> 770
<211> 452
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G12

<400> 770

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acagcttcgc caacgggcac tgctacgaag gctcgtggca cgaaggcaag aagcagggat 120
tcgggatgta cacgttccgg aacggcgaca agcgatcggg ggactgggat tctgggacgc 180
tcaagacccc cttgcccccg gccgatcctt ctgtccagcg agccgtacag gctgcacagc 240
gagctgcaga gaacgcgttt cgcttgcccta gagttgatga gcaggtccac agggcggtaa 300
tggccgcgaa cagggcgggc acggccgctc gagtggcggc gatcaaggca gtccagaaca 360
ggatggatgg gaagttttgt gagacctatg tgtgaattgc tgtgtgcgaa accatgtttc 420
gctctctctc tctctttcta actggacatt ta 452

<210> 771

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G3

<400> 771

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ctaccaagat attatgccgg cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaac agcagttgct tgcacaaac ccacttgctc 420
tggcaaacgt agttgcaaac cagccacaac aacag 455

<210> 772

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-G4

<400> 772

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tatgctcctt ggtctgtctg caagtgtgc taccgcaacc attttcccac aatgctcaca 120
agctcctata gcttcctttc tcccccata cctctcacca gcggtgtctt cagtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagcaagca tcttaccttt 240
atcacccttg ttcctccaac aaccgtcagc cctattacag caattacctt tgggtgcattt 300
gttggcacia aacatcaaag cacaacaact acaacaactt gtgctaggaa accttgctgc 360
ctactctcag caacagcagt ttcttccatt caaccaactg gctgcattga actctgctgc 420
ttatttgcaa caacaac 437

<210> 773

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F11

<400> 773

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ctccttggtc tttctgcgaa gtgctgtac cgcaaccatt ttcccacaat gctcacaagc 120
tcctatagct tcctttcttc ccccatacct cttaccagcg gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaagcatct tacctttatc 240
accttgtat cttcaacaac cggcagccct attacagcag atacctttca tgcatttggt 300
ggcacaaaac atcaatgcac aacaactaca acaacttgag ctatgaaacc ttgctgtcta 360
ctctcaatca caggcatttc ttacattcaa ccaactggct gcattgaact ctgctgctta 420
ttttcaacaa caacta 436

<210> 774

<211> 238

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-D6

<400> 774

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tttagaagca gccagcgcg actaatcctc gcagcagc atcacgctgt ccatgctccc 120
 tgcattccaac gccagtgtg cgacgatccg cgtgccggca taccacaatc catacgaccc 180
 gttacagagc tgcccatgga tcataacacg acccaacagg aaaaatacac cgcaagca 238

<210> 775

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-D7

<400> 775

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 aacatatcaa acctgctcgc actaatcgcc cttaatagtg aacgcaacaa atgcgatcat 120
 taaatcacag tactcacttg ctcttagagc cattattgca cacctcctac caccagttac 180
 ttcaaagggc ttccaacatc caacaaaaca agcctacagg ctacaactag cgcatgcagc 240
 catcacatta caacaaccaa tagcacaact gcaacaacaa tccttagcac atctaaccct 300
 acaaaccata gcaacgcaac aacaacaaca acaacagcat ctgccaccac tgagccaact 360
 agccctgggtg aaccaagtca cctacttgca acaacaactg ctagcataca aaccac 416

<210> 776

<211> 279

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-D8

<400> 776

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 agcataccac agccgctaag cactaatcaa ctacagagcc atgcctctcc aagaccaaca 120
 cacaagaagc cacaccacca ccgacgccgc ctcagcaagc acaccaagaa caagtccgtc 180
 actgagactg ataccagga cgcatagc tgagctacaa gctacgactc caacgagaac 240
 gccgatccca accacgagcc acaggacgac gtcaagata 279

<210> 777

<211> 346

<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-058-Q1-K1-D9

<400> 777

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 ggattctgcc tgaattctgg acttatgctg ctactgcagt tccagatatg ggtctcatgg 120
 caatgaatca catattactt attgccgcta tgctagctgt gtgactgcca tacggtgtct 180
 cggaaccctg gttaggcttc ttacatacac ctgttacgac acctgagttg ctgtaaccct 240
 tgctacatga gcctatgccg tnttacgtcc atcattgata acaaatcagt ctattaccta 300
 aagtacaacc attgaaacat ggcacccggt ctcaacgtcc ccagct 346

<210> 778
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-E1

<400> 778

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 gggggctcag cacggggacg ggacaggacc ccaaaatctc acactcttcc tgcccggccg 120
 gccggggccg tcgacgcgtc ggacttgccg gccgagcctc acctccggcc tctcctgatg 180
 caaggggatc ggatacgcca caggctacgc gacggtgctg cgggactacg agctacgagg 240
 tcgcaatctg gaaccccggc ttcgacttcg acgacaaaat cctcggcttc atcaagggct 300
 acaagcgcac ctttaatctc acttgcatcg accacagagg cacaccggaa caatcggcga 360
 ggacctgcac gctcgaaacc gacgacgagg ccataagctg gggaaatgca t 411

<210> 779
 <211> 444
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-E11

<400> 779

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctocta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccaactag 360
ccatggtgaa ccctgccgcc tacttgcaag agcagctgct tgcaccaac ccacttgctc 420
tggcgaacgt agttgcaaac cagc 444

<210> 780
<211> 442
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-E12
<400> 780

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ttcctccaac aatcatcagc cctattacaa cagttacctt tgggtgcattt attggcacia 180
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 240
caacagcagt ttcttcatt caaccaacta ggttcattga actctgcttc ttatttgcaa 300
caacaacaac taccattcag ccagctacct gctgcctacc ccagcaatt tcttccattc 360
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agccagctag ctggtgtgag cc 442

<210> 781
<211> 268
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-E2
<400> 781

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tactcacacg acgcaatagc tgcccgactg aactcagaac agcaatcaca cagacctaca 180
gtatgggaaa aaccagggcg ccagccataa cgaaaccgta caggacaagg accacgaaac 240
cgaaaagtgt cacacagacc acaacaac 268

<210> 782
<211> 411
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-E3
<400> 782

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tggatcctta tgctccttgc tctttctgca tgtgttgcta acgcgaccat ttttcctcaa 120
tactcacaag ctctatagc tgcccttctt ccccatacc ttccatcaat gaccgcttta 180
gtatgtgaaa acccagccct tcaaccctac aggatccagc aagcaatcgc aacaagcaac 240
ttacctttat cacacctgtt ctttcaacaa tcgccagccc tatctttggg gcagtcattg 300
gtacaaacca tcaaggcaga acagttgcag caactcgtgc taccagtgat caaccaagta 360
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<210> 783
<211> 432
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-E5
<400> 783

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cttactagta taggcaccaa atcaaactctg caacatcaat tatctaactc caaaaaccat 120
gaagctgggtg cttgtgggtc ttgctttcat tgcttttagta tcaagtgttt cttgtacaca 180
gacaggcggc tgcagctgtg gtcaacaaca aagccatgag cagcaacatc atacacaaca 240
acatcatcca caaaaacaac aacatcaacc accaccacaa catcaccagc agcatcaaca 300
ccaacaacaa caagttcaca tgcaaccaca aaaacatcag caacaacaag aagttcatgt 360
tcaacaacaa caacaacaac cgcagcacca ccaccaacaa caacaacaac agcaccaaca 420

acaacctcaa tg

432

<210> 784

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-E7

<400> 784

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tcatggacgg cagttccttc tgctcgccgg cgtgctgctg gccgtcgcag acacggccgg 180
tgcggaggac agactggtcg aactaaaccg cccggcggac ctgcggcggg gcaagcatgc 240
agacaagtag cacaactgaa aggacacccc gaggaagagg gaatgcgaga gcgagtgccg 300
cgagcggcac catcaagatg acgcggtcga tgacagcaac cgcagcgact a 351

<210> 785

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-E8

<400> 785

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aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc atactctcag 180
caacatcagt ttcttccatt caaccaactg gctgcattga actctgctgc ttatttgcaa 240
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caactagcag cattgaactc tgggtgcttat ttacagcaac aacaactact accattcagc 360
cagctagctg atgtgagccc tgctgccttc ttgacacaac aacagttggg ggcgttctac 420
cttgacgcta tgcctaa 437

<210> 786

<211> 203

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-E9

<400> 786

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ggatggacga cgaccgggac caccgacct acccctacgc gtcacagccg gccgtgccct   120
gacgacggtc cctgaagcgg aagctgctcg cggacgcgga agtcgaggcg gaccccgcg   180
cgcggttcga ggccgacgac gag                                     203
  
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<210> 787
 <211> 358
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F1

<400> 787

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ggttggtctc gactccctgt ggatcgatgg gggcgcagcg gctcccgta aggtggatgg   180
caccgatgtg gcctaccgta gcgcgatcaa gctgatgcac gagaagacca agcaccgtct   240
gcactctcac gatgtgccct acggctcagg caccagtcac cagcctgtca cggggtctcc   300
tgaaggcgat gactcaaata gctactggat cataaggccc actccagatt catcgtct   358
  
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<210> 788
 <211> 345
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-F10

<400> 788

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ctactcgtea gtgctcatgt cccgcgggta caaccaatc tgcgttgga tccccgctc   180
catcccccaa gttcctaact acgtggtgga tgaacctaag gaggaggcga ctgctcaagg   240
  
```

gcatgacctt aggcggttca agtactggtg cgcgggttac tccatgttcg tggacaacag 300
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<210> 789

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-D5

<400> 789

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 cggacgacgc tcagaactac tgctgccaac caaacgtatg ctgaaacaag tttggctact 180
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 tcgtcaagag caagcaaata cctgccgagg agcgaacgtg gctagcgtag acacagcatc 300
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<210> 790

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B9

<400> 790

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 tgactgcatt agaaagatct gcatatgaag ctcttggaac agattttggg aaatataacc 180
 agaaactgcg acaactacag ttcaacatca acaatatctc taaacttctc aggaggctga 240
 tggacaagga gcttgatcct ccagttcttc taaccatgtg ccccgatgaa ttacaggctg 300
 gcttgacttc agcagagaaa acatctgaac cagaagaatc aaggaaatct cagatgactg 360
 atactggatg tcaaagatgc agcgaacaga aagttggcat atctcatatt atccat 416

<210> 791
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C1

<400> 791

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atgccagtgc tcagtcaact agccatggtg aaccctgccg tctacctaca actactttca 180
tctagcccgc tcgcggtggg caatgcacct acgtacctac aacaacagtt gctgcaacaa 240
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cttcattca accaactggc tgtgtcaaac tctgctgagt acctacaaca gcgacaacag 360
ttacttaatc cattggcagt ggctaaccga ttggctcgta ccttcctgca gcaacaacaa 420
caattgctgc catacaacca gttctc 446
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<210> 792
 <211> 271
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C10

<400> 792

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ggcggaagga cgcacggtcg gtgcggatca agcgggcaa ggacgcgcgc aagttcaagg 180
tgcgctgtgc caggtagctc tacaccctct gcgtccacga cgccgacaag gccacaagc 240
tcaagcagtc gctcccggca ggtctgactg t 271
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<210> 793
 <211> 445
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C11

<400> 793

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acatctgata cagctaagta gctagccagc actacagaag ggctgtggcaa gaatcaggag 180
agagatagca ggggggctag ctagctgagc tcgtgcgacg aagaatggcc ggaattggca 240
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tcgcgagctg gaacctgaac cacttcatca acgggcagac caactacccc ggctgtggccg 360
gcaacggcgc gacgttctac ttctgtgtg tcgccatcct ggccggcgtg gtgggcgcgg 420
ctttcaaact ggccggcgtg cacca 445

<210> 794
<211> 382
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-C2
<400> 794

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ccggcggagc tgggtggcggc gggcagccgg acgccgtcgc ccaagacgaa ggctcgcag 180
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cgacgcctcg tctactccca catcaaccag gcgctcctac ggcccaggtc gttcgcggcg 300
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agcactggct gtaaagcaag gg 382

<210> 795
<211> 418
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-C3
<400> 795

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ctgccatcac tgaaccacct aatcatcttg aaccctgtca cctacttgca acagcagctg 120

ctatcataca acccacttgc tctgccgaac gtagctgcat accaccaaca acaacagctg 180
 caacagcata tgccagtgat cactcaacta gccatgctga accctgccgt ctacctacaa 240
 ctactatcat ctagaccgct cgcagtaggc aatgcaccta cctacctaca acaacagttg 300
 ctacaacaaa tagtaccacc tctgactcac ctagctgtcg caaacccctc agcctactta 360
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<210> 796

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C4

<400> 796

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 tcattattcc acaatgctaa cttgctccta gtgccattat accacagttc cttcgaccag 180
 ttacttcaat gggctttgaa cacctagctg tgcaagccta caggctacaa caagcgcttg 240
 caaaaaccgc ttacaacaac caattaacca attgcaacaa caattcttgg caaatctaac 300
 catacaaacc aatcgcacac aacaagcaca acaatttcta ccagcactga accaactag 359

<210> 797

<211> 336

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C5

<400> 797

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 caaatccac aatgctcaca agctgctata acttacctca taccaccata ccttccatca 180
 attatagcgt caccatgtga acaccaact atacaaccat atacgcttca acaagccatc 240
 gaagcaagca acatacccca atcgaccatg ctattacaac aataaccaac catataagcg 300
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<210> 798
 <211> 386
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-058-Q1-K1-C6

 <400> 798

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 gtatgtgaaa acccaattat taaaccctac agcatccaac aagcaatcac agctggagtc 240
 agacctgtat cacacttggt cctacaacaa tcatcagccc tattacatca acaacctttg 300
 gtgcatatat tggcacaaca catcagggca caacaactac aacaactagt gctagcagac 360
 cttgctgcct actcttagca acagca 386

<210> 799
 <211> 346
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-058-Q1-K1-C7

 <400> 799

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 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat ttttcaaccc tacaggatcc aacaggcaat cacagctggc 240
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<210> 800
 <211> 431
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-058-Q1-K1-C8

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caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
gccgtgggtga accctgtcac ctacttgcaa cagcagctgc ttgcatcaa cccacttgct 420
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<210> 801

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-C9

<400> 801

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caatgctcac aagctcctat agcttcctt cttccccgt acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240
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aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
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<210> 802

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-D1

<400> 802

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 ttttaaccaat tggccgcact gaacctcgct gcttatttgc agcatcaaatt attactacca 180
 ttttagccagc tagctgcagc aagccgtgct tccttcttga cacagcaaca gttgctgcct 240
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<210> 803
 <211> 387
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 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-D10
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 cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg tgtgagccct 180
 gctaccttct tgacacaacc acaattgttg ccgttctacc agcacgctgc gcctaacgct 240
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<210> 804
 <211> 421
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-D12
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gattgaggga gacttcattc accttcgtga aggagcacag cagatcattt ctgctactac 180
agctgctgca aaaatagctg ctgctacagc atcttctgcc cttactcat cttactgcc 240
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ttccagatca tcaaatgcaa ttctttctgg aaatggcttc acagatcaat ttaacatcat 360
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c 421

<210> 805
<211> 107
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-D2
<400> 805

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gacatacaac gccatgactg gcaaaaccct cacagaacct aacttaa 107

<210> 806
<211> 379
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-058-Q1-K1-D3
<400> 806

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acctgacaga atactactgc gacgacacgt acttctccgc ccaggcctcc gacgtgccgt 180
ccatggtgct acccatctgc gactacttca acggattaca aacggacacc aaggatatgg 240
agaagaataa gaagggtagc accacacttg cttcatatt caacaagggc atcatcgtca 300
ccagtgatcc caaagccacc atggacggat atatatactc acaaaccgtg aagaaaatta 360
ttgaaataaa tccttacat 379

<210> 807
<211> 195

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-B8
 <400> 807

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 taaaagaggc cagca 195

<210> 808
 <211> 224
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-A3
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<210> 809
 <211> 419
 <212> DNA
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 <223> Clone ID: LIB3061-058-Q1-K1-A4
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 tacgggctat tgggaggatg ttggaacaat caaatcattc tttgatgcaa acttggccct 120
 cactgagcag ccttccaagt ttgattttta tgatccaaaa acacctttct tcaactgcacc 180
 ccgatgcttg cctccgacgc aattggacaa gtgcaagatg aaagatgcat ttatctcaga 240
 tggttgctta ctgagagaat gcaacatcga gcattctgtg attggagtct gctcacgtgt 300
 cagctctgga tgtgaactca aggactccgt gatgatggga gcggacacct atgaaactga 360

agaagaagct tcaaagctac tgtagctgg gaaagtccca gttggaatag ggaggaaca 419

<210> 810

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-A5

<400> 810

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agaaggctga aaggcatgct ataaacagag atagaccga tcgtggtgta tgggcagctt 120
gacgctatga caaatctaca tctgcaggta gtacacatcc tccgtcgtca gagttgcctc 180
aaatgcagtc acattctgga gataatattt tgcaactagc agatgggtcat ggatacagaa 240
agacagacac atgggatcaa ggtggtagcc aggggtgtcc tgttgaaaat ggacataggc 300
acgcctaccg atgtggacct tcacgttgac caatggaaac tgaaatctct gcaaattgtc 360
ctgaatgcga gaattcaaag ctgggctc 388

<210> 811

<211> 373

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-A6

<400> 811

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agatagtgat gccagtgaac cagaaccgga accagaacga gaacccaagc cggaaccgga 120
accagaagaa ccaaagccac agccttgccg gtgcaggcct acaacaaga ataatgcaa 180
acagaaagtt gggaagccac catcagaacg tgcaactgca gacttttctg gtgcaacact 240
tgctactgcg gcaaattattg aacggcatgc acaggcagat gttgatctgt cacgaatagt 300
aatggataaa gcgatgattg cagatgtgtt gagagcttct tttgacaacc taaagaatga 360
gcacaactgg tct 373

<210> 812

<211> 399

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-A7
 <400> 812

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 cagcgagtac gatcccttat gggatttgat ctgggtctaatt tgttggttaag tggaggtatt 180
 gctctcagtt gttttgtgct ctgtttgtcg gcatatgccca agagctaggg cttctcaagt 240
 tctaagcttt tagacgagtg gattccttcc attgaagagc cggcaaaagt tctgccctgc 300
 acctgctaaa aatagatcctt accctgggtcc aatgctaaat aatatgacgt gtcgccttct 360
 agatgtggat attatgtgaa tgtacaatat gtctagata 399

<210> 813
 <211> 441
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-A8
 <400> 813

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 aacacccagc tgtgcaagcc tataggctac aacaagcgct tgcggcgagc gtcttagaac 120
 aaccaattgc ccaattacaa caacaatcct tggcacatct aaccatacaa accatcgcaa 180
 cgcagcagca acaagcactg agccacctag ccgtggtgaa ccctatcgcc tacttgcaac 240
 aacagctgct tgcattcaac ccacttgctt tggcaaacgt aactgcatac caacaacaac 300
 aacagttgca acagtttcta ccagcgctca gtcaactagc catggtgaac cctatcgctt 360
 acctacaaca gcaacaactt ctttcatcta gcccgctcgc tatgggcaat gcacctacat 420
 acctgcaaca actggttggtg c 441

<210> 814
 <211> 441
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-058-Q1-K1-A9

<400> 814

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catagagcta tgacctcgaa ggagcacgat tcttcgacca aaattcctgt ccgtctcaag 120
agtggcagcc cgatatgctc agcctgagaa aacttcacgg gcaaagctgt cagttatatc 180
agtgacaaac agacgcaaga taaggatcatg ggatcccttc atgacgcttg ctctcaatca 240
ttctcgggta aacagaagtg cgatgaaatg atggactctt actcaaccct tctgtttgcc 300
aagatcacgg agatcaaacc agaagcgctt tgcaaacagg atggcctgtg caggagcaca 360
ggtgcttgct ctggtgtgac aagtgcaggg ccatgtgtgt tctgccacca actgcttgat 420
gaaggatatg tcaaactgaa a 441

<210> 815

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B1

<400> 815

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tcgttatgct ccttggctctt tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc cttcttcccc catacctctc accagcgggtg tcttcaatgt 180
gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcattctac 240
cattatcacc cttgttcttc caacaaccgt cagccctatt acagcagtta cctttggctc 300
atttggtggc acaaaacatc agggcacaac aactacaaca acttggtgcta gcaaaccctg 360
ctgcatactc tcagcaacat caatttcttc cattcaacca actggctgca ttgaactctg 420

<210> 816

<211> 179

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B10

<400> 816

ccccactga agaaactatg tgctgtagta tagccgctgg ctagctagct aggggagtcg 60

tttatcggcg atgattgagt aataatgtgt cacgcatcac catgggtggc agtgtcagtg 120
 tgagcaatga cctgaatgaa caattgaaat gaaaagaaaa aaagtactcc atctgttcc 179

<210> 817

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B11

<400> 817

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 gattatgctc cttggtcttt ctgcaagtgc tgctacggcg agcattttcc cgcaatgctc 120
 acaagctcct atagcttccc ttcttcccc atacctctca ccagcgatgt cttcagtatg 180
 tgaaaatcca attcttctac cctacaggat ccaacaggca atcgcgagcag gcatcttacc 240
 tttatcacc ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa ctctgtgctag caaaccttgc 360
 tgccctactct cagcaacagc agttaccttt ggtgcatttg ttggcacaaa acatcatggc 420
 acaacaacta caacaactcg tgctagca 448

<210> 818

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-058-Q1-K1-B12

<400> 818

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 gatcgttgcc cttgctctcc tggecgctcg tgcgagcgcc gcctccagta caagcggcgg 120
 ctgtggctgc cagacaccac cgtttcatct accgcctccg ttctatatgc cgctccggtt 180
 ctatctgccg ccgcagcagc agccgcagcc atggcaatac cccactcaac caccgcagct 240
 aagcccgtgc cagcagttcg gatcctgcgg cgtcggcagc gtcggcagcc cgttctctggg 300
 ccagtgcgct gagttcctga ggcaccagtg cagcccggcg gcgacgcctt acggctcgcc 360

acagtgccag gcgctgcagc agcagtgctg ccaccagatc aagcangtgg agccgctgca 420
ccggtaccag gcgacatac 439

<210> 819
<211> 417
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B2

<400> 819

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ccttatgctc cttgggtcttt ctgcaagtgt tgctaccgca accattttcc cacaatgctc 120
acaagctcct atagctttcc ttctttcccc atacctctca ccagcgggtgt cttcaatgtg 180
tgaaaaccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcattcttacc 240
attatcacc cttgttccttc aacaaccgtc agccctatta cagcagttac ctttgggtcca 300
tttgggtggca caaaacatca aggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgcatactct cagcaacatc aggttctttc attcaaccaa ctggctgcat tgaactc 417

<210> 820
<211> 445
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B4

<400> 820

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aacaatggct accaagatat tatccctctt tgcgcttctt gccctttttg tgagcgcaac 120
aaatgcgttc attattccac aatgctcact tgctcctagt gccattattc cacagttcct 180
ccctccagtt acttcaatgg gcttcgaaca ccagctgtg caagcctaca ggctacaaca 240
agcgccttgcg gcgagcgtct tacaacaacc aattgcccac ttacaacaac aatccttggc 300
acatctaacc atacaaacca tcgcaacgca acagcaacaa caatttctac cagcactgag 360
ccaactagct gtgggtgaacc ctgtcgcta cttgcaacag cagttgcttg catccaaccc 420
acttgctctg gcaaacatag ttgca 445

<210> 821
 <211> 405
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B5

<400> 821

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gctcaacca atggctcctt cctccctcgc cccgcccgcg caccaccgt ctcccctcgt 120
cgtcctcgcc atcgccgtcc tcctcgtctt gcgcaccgac gatgggctgc cggaggcggg 180
aggaggagga ggaggcggcg gtctgtaccg ggagattctc agggacgaga ccgtgcagag 240
gctcaaggag ctgggcaaga tatctgatgg ggatggctac cttgaaagga cgtttctgag 300
tccggccttt atcagagcca ctggtgtcat cgtcagctgg atgaaagacg ctgggcttac 360
gacgtgggtc gatcagatgg ggaatattca tggtcgatat gagcc 405
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<210> 822
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B6

<400> 822

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atgaacgggtg gcagttcccc aacaagtgtc ccacctcggc tgcttgagct tgatattcca 120
acaagcagct ctagtatacc tagattatca gcctctgcag caagagaaaa gatcagtagt 180
ctcgattctc ttcccaagag catgattgga ttgaagagga agtttaatcc ttccggtgct 240
gtggcggcca gtgctgatca ggatggacta catcatatgg ataaaataga tgtttctcaa 300
cgaagacggc ttaatgaata caaaactttg accctggaga atgacaagtt gcgaaatgaa 360
tgcttacaat acgagggatc agagaaacaa cttgtcctga aggaacaaaa gctccgatct 420
gaaattgctg aagtgg 436
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<210> 823
 <211> 421
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-B7

<400> 823

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aactacaaca acttgtgcta gcaaaccttg ctgcctactc tcaccaacag cagtctcttc 120
cattcaacca actatctgca ttgaactctg cttcttattt gcaacaacaa caactaccat 180
tcagccagct acctgctgac taccctccagc aacatcttcc attcaaccaa ctggcatcat 240
ttaactctcc tgcttattta cagcagcaac aactactacc attcagccaa ctagctggtg 300
tgagccctgc taccttattg atacaaccac agttgttgcc gttataacag cacgctgcac 360
ctaacgctgg caccctctta caactgccac aattgctgcc attcaaccaa cttgctttga 420
c 421

<210> 824

<211> 259

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-A12

<400> 824

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ctgcatgtgt tgctaacgcg acaattttcc ctcaatgctc acaagctcct atagcttacc 120
tgcttcccc ataccttcca tcaatgatag cttcagtatg tgaaaaccca gctcttcaac 180
cctataagct ccaacaagca atcgagcat gcaacatacc tttatcacc ttgtttcaaa 240
catcgccagg cctatcttt 259

<210> 825

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G8

<400> 825

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gtgctagcaa accttgctgc atactctcag caacatcagt ttcttccatt caaccaactg 120
gctgcattga actctgctgc ttatttgcaa catcaattac cattcagcca gctagttgct 180
gcctaccccc agcaatttct tccattcaac caactagcag cattgaactc tgctgcttat 240
ttacagcagc aacaactact accattcagc cagctagctg atgtgagccc tgctgccttc 300
ttgacacaac aacagttggt gccgttctac ctgcacgcta tgcctaacgc tggcaccttc 360
ttacaactgc aacaattgct gccattcaac caacttgctt tgacaaacct aaca 414

<210> 826

<211> 308

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G9

<400> 826

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aacctggctt ggatctctca tcaacagcgg gtgggtccat tcaacctact aggttcattg 120
aactctgctt cttatttgca acaacaacaa ctaccattca cccagctacc tgctgcctac 180
cctcagcaat ttcttccatt caaccaacta tcagcattga actctctgc ttatctacag 240
cagcaacaac tactaccatt cagccatctt gctgggtgaa acccttctac cttctttaca 300
caaccaca 308

<210> 827

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H1

<400> 827

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ctgggtcaaaa gtagttgcca gtgataaatt gcaatctggc ctggcatctt cacttcgcat 120
ccaagatggt atgagaaatg agatccaaag agtccaggat gaactttctt gcataaccca 180
caaagcta atcagttggagc ttcaggtatt caagatggat gagtcaatcg atgagatcca 240
ataggatttc taggaatcta cgaaagagct ggctgctctt cgaggaacac tgaaaacggc 300

gattgaagac agggacctgt cgtggcagga ggtgaagtag ctgagaagaa acatcagcat 360
catgctagaa cgaggttgtg tcgctgaaga agatcgaagc cttggacaaa gacatacttg 420
tcaaggaggg ag 432

<210> 828

<211> 374

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H10

<400> 828

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ctagcaagat attagcgctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttg ctcccaccag 180
ttacttcaat gggcttcaaa cacctagctg tgcaagccaa catgcaacat caagcgcttg 240
cggctagcgt cttacaacat ccaattgccc aattgcaaca acaatacttg ccacatctaa 300
caatacaagc catcacaacg catcagcaac aacagttcct accagcactg aaccacctag 360
ccatggtgaa ccct 374

<210> 829

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H11

<400> 829

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ttttgccgca atgtccacaa gctcctatag cttcccttct tccccgtac ctctcaccag 120
cgggtgtcttc ggtatgtgaa aaccaattc ttcaacccta caggatccaa caggcaatcg 180
cagctggcat cttaccttta tcacccttgt tcttcaaca atcatcagcc ctattacagc 240
agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta caacaacttg 300
tgctagcaaa ccttgetgcc tactctcagc aacagcagtt tcttccattc aaccaactag 360
ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc cagctacctg 420

ttgcctaccc c

431

<210> 830

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H12

<400> 830

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tggcgtctaa agcctaccct tcgtcatgca atgacaccga cgtcgtgctg acaatttcaa 120
agcgtgacaa atccgctgca aatgattcaa catacctcaa tcctcaagct catgatagtg 180
ttcttggaat cattctggga ggtgggtgctg ggactagatt gtacccttg acaaagaagc 240
gtgccaagcc tgcagtgcc a ttgggtgcc actatagact gattgatatt cctgtcagca 300
cttgtcttaa cagcaacata tccacgatct atgtgctata cgcaatttaa c 351

<210> 831

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H2

<400> 831

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gaggacggct acttgaggc cgcgctgcgc ctccgcgacc agctgggagt cctcggcgcg 120
ctcacctccg ccggcgtcaa gcccgcggc ggctactaca cgctgagcca gatcaagggc 180
gccatccgcc agggcaccgg cttcgagccc tacgtggagt gcaaccgcga cgaggccggc 240
aacagccagc tctaccagct ctacttctgc gtcgacgcg ccggcgacag cttcgtcgac 300
tgccccgtcc tccccagcg caggccctgt ggcaaccgga tcgagttccc ggctttctaa 360
gctaactcac tcttcacgtc agttgctgca atatact 397

<210> 832

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H4

<400> 832

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aacagagcaa caatggctac ggacatgttt tacctcctga tgcgccttgc tctttctgca 120
tgtgttgcta acgcgacaat tttccctcaa tgctcacaag ctccatatagc ttcccttctt 180
ccccataacc ttccatcaat gatagcttca gtatgtgaaa acccagctct tcagccctat 240
aagctccaac aagcaatcac agcatgcaac atacctttat cacccttggt gtttcaacaa 300
tcgccagccc tatctttggg gcagtcattg gtacaaacca tcatggcaca tcaactgcaa 360
caactcgtgc tacctgtgat caaccaagta gctctagcca acctttctcc ctactctcag 420
caacaaca 428

<210> 833

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H5

<400> 833

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tttaggggtg gaaataaggc ggatgggtat cctactacgt ggtgcagatg acctgacgta 120
tcccactgac gacctatctg gaggtgcgtg ggcattcggc cctctttccg cgtggcgttt 180
cttcgtgcct gaggcgacga cagtttggca ccggctctct gccgtcgaga gaatggcacc 240
agctcgtatc accactgctg gcataatgtg tctgttcctc ttcagctcgc tgettatatta 300
agaaaccgtg acagagaatg cctgacctta aatctgttga accaatgtac cgggggaggt 360
aaccagtgca tcagtactcc ctgtacacgc ctactccggc ccctcagctg cacttcagat 420
cagatctcct gaattgcacg tttgagatcg agat 454

<210> 834

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H7

<400> 834

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gagggtgttg ctcgggggccc tcgtctctct ggctctcgct gcgagcgcca cctccacgca 120
tacaagcggc ggctgcggct gccagccacc gccgcgggtt catctaccgc cgccggtgca 180
tctgccacct ccggttcacc tgccacctcc ggtgcatctc ccaccgccg tccacctgcc 240
gccgcgggtc cacctgccac cgcgggtcca tgtgccgccc ccggttcac tgccgcccac 300
accatgccac taccctactc aaccgccccg gcctcagcct catccccagc cacacccatg 360
cccgtgccaa ca 372

<210> 835

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H8

<400> 835

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tccttatgct ccttggctct tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc cttcttcccc catacctctc accagcgggtg tcttcaatgt 180
gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcattcttac 240
cattatcacc cttgttctct caacaaccgt cagccctatt acagcagtta cctttggctc 300
atttgggtggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
ctgcatactc tcagcaacat c 381

<210> 836

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-H9

<400> 836

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gctcggttgc ctttctgcaa gtgctgctac tgcgagcatt ttcccgaat gctcacaagc 120

tactatagct tacctttcttc ccccatacct ctcaccagcg atgtcttcag tatgtgaaaa 180
tccaattctt ataccctaca ggatccaaca tgcaatcgca gcacgcatct tacctttatc 240
acccttgatc ctccaacaat catcagccct attacagcag tcacctttga tgcatttatc 300
gtcacaaaac atcagggctc aacaactaca acatctcgtg ctatcaaacc ttgctgccta 360
ctctcaacaa caacagttac ctttggtgca tttgctggca cataacatca tggcacaaca 420
actacaac 428

<210> 837
<211> 443
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-A1

<400> 837

gtggaataca gtagcaacaa tagagcatca atggcggcca agatattttc catccttatg 60
ctccttgctc tttctgcatg tgttgctaac gcgaccattt ttcctcaata ctcacaagct 120
cctatagctg ccctttcttc cccatacctt ccatcaatga ccgcttcagt ttgtgaaaac 180
ccagcccttc aaccctacag gctccaacaa gcaatcgcaa caagcaactt acctttatca 240
cccctgttct ttcaacaatc gccagcccta tctttggtgc agtcattggt acaaaccatc 300
agggcacaac agctgcaaca actcgtgcta ccagtgatca gccaaagtagc tctggcaaac 360
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cctgctgggt atttacaaca aca 443

<210> 838
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-058-Q1-K1-A10

<400> 838

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atgtcgtccc ggccgagcga gcgggagcag atgcggaagg gcaactacaa gcagacggtg 180

gacgccgagg agagccgccg ccgccgccgag ggccagatgg tcgacatccg caaggccaag 240
cgagaggaaa gcctccagaa gaagcgccgc gatgggttcc ccgccggcgg cgccgtgccg 300
ccgatggggc actccaccgc actccagcag aagctcgatg gcttgccggc gatggtacag 360
gccgttcact ccaacgaccc cactgtgcag cttgaggcca ccacgcagtt caggaagctg 420
ctctccatag agcgtagtcc 440

<210> 839
<211> 426
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-057-Q1-K1-G7

<400> 839

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ctggcagcat tgaactctcc tgcttattta cagcagcaac aactactacc attcagccag 120
ctagctgggtg tgagccctgc taccttcttg atacaaccac agttgttgcc gttctaccag 180
cacgctgcgc ctaacgctgg caccctctta caactgcaac aattgctgcc attcaaccaa 240
cttgctttga caaacccaac agtggttctac caacaacca tcattggtgg tgccctcttt 300
tagattgctt atgagttata gttcaataat gaagtttttt ggatgatgtt tgtggcgtcc 360
cagaaataag aaagtacatt tctaaaaaaaa aaaaanaaga agaaagaata aaatataata 420
gaataa 426

<210> 840
<211> 331
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F2

<400> 840

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gcggcagcag tggacgagac agtaatcgta aatgggaaag tcagggcctt gatcttaact 120
caggccctgg aagtatagat ttagaaggaa aggatgaacg ggtaccttta ccagtcagac 180
aaaatttgat cccaccccca cagggttttg tggaggatca aggaagaatc taccagatgc 240

cacttgtagg aacaaagaga aaggaacctg atggcagctg ggactcagaa aggtctacat 300
acaagccatt atccatggca atgatggctc t 331

<210> 841

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F3

<400> 841

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ggagtggcct gctgcttggt ctgttggtgg gttggttgtg ttctattata aatgggggag 120
ctttatacag aagaaagaga gtgagcatgc tgatggccct gtccagcttt ccaagtttct 180
tggacgggac aaagaaaagg aagaaggtac tcaacggagt gcaatctctg gtaaaaagat 240
aatgatgaag cttgagaaga caaaggaaga caaggcagca gagagcaagc gaaacgaact 300
gttgaagttt ctgaatgccca gttacgattg atgtgttcga atcgctggcg cagaaagtgc 360
agaatgccct ttttatcgtc tttgcactgg tgcttttggt gataacttaag ttataaacgt 420
tttg 424

<210> 842

<211> 286

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F4

<400> 842

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ttatcgctac caataccatc attatacaac actgatcacc tgctataact tccattatac 120
cacaatacct ctcaccagct acttcaacaa tgcttcaaac acctatcttt ccaaccctac 180
aaactacacc aagcacttga acagaccttt taacatcatc aaactaacca attcaaccac 240
caatactcgt atcacataac cttacttacc atcatatcac atcaca 286

<210> 843

<211> 327

<212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-057-Q1-K1-F5

<400> 843

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cagttcaatt attccacaat gnetcatctt gctccatagt tccattatta catctgttcc 180
tcccaccagt taccttcaat gggnettcga acatcccagc tgtgcatagc ctatanggct 240
acatacaagc aattagcggc gagcgtctta caacatacca atttcccagt tggcaacaac 300
atataccttg cacatnncta acaatac 327
```

<210> 844
 <211> 399
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F6

<400> 844

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aacaacaaca gttgcaacag tttctgccag cgctcagtc actagccatg gtgaaccgta 60
tcgcctacct acaacagcaa caacttcttt catctagccc gctcgctatg ggcaatgcac 120
ctacatacct gcaacaacag ttgatgcaac aacagttgct gcaacaaatt gtaccagctc 180
ttactcagct agctgtggca aaccctgctg gctacttgca acaactactt gcattcaacc 240
aactgactgt gtcgaactct gctgcgtacc tacaacagcg acatcagtta cttaatccac 300
tagcggcggc taaccattg gtcgctgact tgctacagca gcaacaattg ctgccatata 360
accagttctc tctgatgaac cctgccttgt cgtggcagc 399
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<210> 845
 <211> 390
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F7

<400> 845

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acagacttaa ttactaagtg ggcaactggc atgccttgaa catctatctt ggtgaattca 120
ttgaggcttt agtggcatta tatttgttgt ataagcatct tgcagagat tctctctggc 180
tagtttagtg cacatgataa ttacagtata tgaatctgat gtgaagtctg tccatcctct 240
gcaacggagt gcatagcatg attcactggt atatatccag cagttaaaat ccatgccgta 300
tttgcccgct gggaacctgg accaattaaa aatggggggt cctgaaccat gggccttggg 360
ccattagggt tcaaaaaacc ccccttggtt 390

<210> 846
<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F8

<400> 846

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tgctccttgg tctttctgca agtgttgcta ccgcaaccat tttcccacaa tgctcacaag 120
ctcctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca atgtgtgaaa 180
ccccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc ttaccattat 240
cacccttgtt cctccaacaa ccgtcagccc tattacagca gttacctttg gtccatttgg 300
tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcat 360
actctcagca acatcagttt cttccattca accaactggc tgcattgaac tc 412

<210> 847
<211> 386
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F9

<400> 847

atctacgggc acagcacatc agggcacaaac atctacaaca acttgtgcta gcaaacctgt 60
gctgggtact ctgagcatca gcgggttgtt acattcaacc aactaggacc atggaactat 120
gcttctaatt cgcaacttct tcaactacaa ttcagacaac tacctgtctg ataccgtgag 180

caattttcttg cattcaacca cctaacagca ttgaactctg ctgcttacat acagcaacta 240
 caactactac cattcaaaca gctagctggc gtaagccctg ctaccttctt gacacatcca 300
 cagtcgctgc cgatctacca tcacgttgta gcctaacgct ggcacgctat tacaagtgca 360
 acaatcgctg ccattcaacc aacttg 386

<210> 848

<211> 156

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G1

<400> 848

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 ttttaagttgg tgcctgcac acccttatca tttcaacaat caccatccct atcttttttt 120
 cattcatttg taaaaacat caattcacia catctt 156

<210> 849

<211> 230

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G10

<400> 849

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 gggggatcct aagacttacg tgcaatttgt ctgaatgctt caaacctttg tggcggaacc 120
 tttgtatgtt tgaacctctg ttgtggaaga tctaattgtc tgtaattgtc tatgactcgc 180
 gatgagaatg tagagtatga tgactcatct gtgtacctta aataaacatc 230

<210> 850

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G11

<400> 850

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caacgtgtac aaggagtacc gggacaccac cctgaacggc gcagtggatc agatgtacaa 120
 cgagatggcc tgacgccacc gcgtgaggta cctctgcata cagatcatca agacagcgac 180
 ggtccacttc aagctgtgca agaggggacaa caccaagcag ttccacaact ccgagatcaa 240
 gttcccgctt gtgtaccgca tggtcaggcc gtctaccagg aagctccgga ccactttcaa 300
 ggcttccagg cccaaccttt tcatgtgaga ggtatatcgt acccgtgttc tgtgtctcga 360
 gcgcccgaga gataaggatt cttcctgtgc aagtttttgg tgccctgttc gttgagcact 420
 ttgtttgat 429

<210> 851

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G2

<400> 851

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 agaagcagat cgagtacgac gacgacctcg acgagcgcat ggagcagacc tgctccgtga 120
 cctccatatg aaggaggccc cgtccgtgtc cggcgccagc ggctccgacc agtccggcag 180
 cggcgggtgag accgtggccg ccgcctagga gccccgggtg gtgggggtggc gcgcatgggg 240
 gcggggcgcg tgtgtgttgt tgcgccctgg tggagcggga gcagcgacgc cggccgatcg 300
 gtcggccccg tccggtagat tccgccatgc tatagagcgc ctgtgcatac agcttttagc 360
 tctgaattcc ggcagtgatg catgcgtaa tgatctatta ttattatagc tgggtgatgc 420
 atgtgactct ggaaac 436

<210> 852

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G3

<400> 852

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ctatatgccg cctccgttct atctgccgcc gcagcagcag ccgcagccat ggcaataccc 180
 cactcaacca ccgcagctaa gcccgtgcc a gcagttcgga tcctgcggcg tcggcagcgt 240
 cggcagcccc ttccctgggccc agtgcgtcga gttccctgagg caccagtgc a gcccggcggc 300
 gacgccctac ggctcgccac agtgccaggc gctgcagcag cagtgcctgcc accagatcag 360
 gcagggtggag ccgctgcacc ggtaccaggc gacatacggg gtgggtcctgc agtccttcct 420
 gcagcagcag ccgcagggcg agctcg 446

<210> 853

<211> 405

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G4

<400> 853

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 acggcgacac cgtctggatg tccgccccca ccccgacat cccttccttc cacgtcgcca 180
 ccaagctcgg ctccacaga ttgttccagt acctgatggg cgcaaacctc aactcttcga 240
 ggatcaggat gaccaccct gtgctcacga gtgtggttcc aggtgcaggg cctctgcgct 300
 cctcggccta ctccgttcgg ctgtacctgc cggcgaagtt ccaggcttcc cgttcggttc 360
 ctctaccgga gctgaacctg catgcagatc ggtggccagg cact 405

<210> 854

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G5

<400> 854

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 tcgcagcaag caacatacct ttatcgccct tgttgtttca acaatcacca gccctatctt 120
 tgggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc gtgctacctg 180
 tgatcaacca agtagctctg gcaaaccctt ctccctactc tcagcaacaa caatttcttc 240

cattcaacca actgtctaca ctgaaccctg ctgcttattt gcagcatcaa ctattaccat 300
 ttagccagct agctactgcc tactctcagc aacaacaact tcttccattt aaccaattgg 360
 ccgcactgaa ccccgctgct tatttgcagc agcaaatact actgccattt agcgagctag 420
 ctg 423

<210> 855

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-G6

<400> 855

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 actggctgct ggcaagacag tgcgtgttcg atttgtgctg aaaaggcagt gcacgttcgg 120
 gcagagcgtc tgccttgtcg gcgacgaccc tgcgctcggc ctctgggatc tgtcgaacgc 180
 gtttcctttg aagtgggchg aaagccacga ctggacctta gagaaagatt tgccggccaa 240
 caagctcatt gagttcaagt tcttgtctca agattccaca ggaaagtgc attggcaggg 300
 tgggccaac agaagctttc agacaggtga aaccgccgca aacacattgg ttgtgtttga 360
 agattgggat gatgtgaaga atcagaaaat agtagaagag gggggagtgg cgtctgctgg 420
 gatagaacaa actgg 435

<210> 856

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F12

<400> 856

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 caatgctcgc aagctcctat agcttccctt attccccgt acctctcacc agcgggtgtc 180
 tcggtatgtg aaaaccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcat ccctattaca acagttacct 300

ttggtgcatc tattggcaca aatcatcagg gcacaacaac tacaacatct tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420
aactctgctt ct 432

<210> 857

<211> 405

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D7

<400> 857

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aatgctcaca agctcctata gcttcccttc ttccccata ccttccatca attatagctt 180
cagtatgtga aaaccagct cttcaaccat ataggcttca acaagcaatc gcagcatgca 240
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tggtacaaac catcagggca caacagctgc agcaactcgt gctacctgtg atcaaccaag 360
tagctctggc aaacctttct cctactctc agcaacaaca atttc 405

<210> 858

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D8

<400> 858

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cagcatgcat aaatgcttat atatcttcgt atctctcact acccatctca aaagactggt 180
atagcacgtg aaaacaccca tatataaacc aatacgtat cacacgcgca atcacacctc 240
gaattacacc ttagcacaa cagttatgaa caatatcaaa tcacatatta catgcacaac 300
ctttggcaca ccaattggca ccaacaatta tggcacaaca tgtgcaacat catggaccaa 360
catactttga 370

<210> 859
 <211> 391
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D9

<400> 859

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cacaatgctc acttgctcct agtgccatta ttccacagtt cctacctaca gttacttcaa 180
tgggcttcga acaccagct gtgcaagcct acaagctaca acatgcgctt gcggcgagcg 240
tcttacaaca accaatcgcc caattacaac aacaatcctt ggcacatgta accatacaaa 300
ccatcggaac gcaacagcaa caacaatttc taccagcact gagccaacta gctgtggtga 360
aacctgtggc ctacttgcaa cagcaattgc t 391
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<210> 860
 <211> 363
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E1

<400> 860

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acggagacta ttctcaagga catgccaac gcgtacatcc aggtgctgcc tgttgggtcg 240
cccgtgacgc tggaccttcg ccccgaccgc gtctgtatct tcggtggcac cgtcggcatt 300
acatcgaccg gtgggtgata ccttccaat gccattaacc aaccttcct ttttaatttaa 360
ggt 363
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<210> 861
 <211> 163
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E10

<400> 861

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tacgaatatg cttaacactc tcacttcttg ttgatacagt gcaaagcata gtgtaattgt 120
atgcttagca cacatttcct taatatcttc gtacgttttt ttt 163

<210> 862

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E11

<400> 862

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cttcaattat tcctagtgtt tgcttctccc ttacttgacc tttgcttgga accattgata 180
gttacttatt gggcatggag cacgtcatct caatggagga gatcctcggg cccttctggg 240
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tcgtcggcag tgtcatagac gttgctgctg ctggtcacgg tgacgggtgag ggtggcgggc 360
acatgatgga tcagcagcac gccacagagt ggacctttga aaggttactg gaagaggatg 420
ctctgacgac 430

<210> 863

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E12

<400> 863

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acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtg cttcaatgtg 180
tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcatcttacc 240

attatcaccc ttgttcctcc aacaaccgtc agccctatta cagcagttac ctttgggtcca 300
 tttgggtggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcatactct cagcaacatc agttttcttcc attcaaccaa ctggctgcat tgaactctgc 420
 tgcttatttg ca 432

<210> 864

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E2

<400> 864

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 cccgctcgcc gagacaccga gtcggcatcg accgtcgtcg cgtctccgag gtccagcgcc 180
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 gtgccgagcg cccgagcacc ccggtcccca ggcgcccaaca agctagcagg ctgcaggtat 300
 gcgctctttg ttgatgcgtc caaggagttg agctgaatgc ccagaaggct agcaggctgc 360
 agaaactgaa ggaaaaggcg gcattcagga acccgggatg agtctatttt aaaatgat 418

<210> 865

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E4

<400> 865

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 ggtcattatt tcacaatgac tgacttgctt ctaatgccat tataccacaa attctccaac 180
 caactacttc aatgggctgt ccaaaaaata tctgtgccaa cctacaagct acaacaagcg 240
 cttgctgcga acgtcttaca acaaccaatt taccaattgc aacaacaatc cttggcacat 300
 ctaaccatac aaaccattgc aacacaacag ctacaacaat tcctaccagc actgatccaa 360

<210> 866
 <211> 209
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-057-Q1-K1-E5

 <400> 866

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 tgccttggtta tgctcgctgg tctttctgaa cgtgctactt cctccaccat tctacaacac 120
 tgatcatgaa gcttgtatat gttaccttca taacgacgta cctcacacca gtagtgcata 180
 cgctatatga aaaccagtt atttaacac 209

<210> 867
 <211> 333
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-057-Q1-K1-E6

 <400> 867

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 actggcttca gatatgggct gatgttgagc tttgttcata acaggaataag ctgaaatctg 120
 aaatggaaga tgagacaagt tggcatgta gtggtcagca tgaccaacat ggtcacatgg 180
 aaaattcaac gaaatttatt ctatctacca gagaagacta ccaagcttct tccgtgtgcg 240
 aattcggtat caaaactggg ttgtcaatgg ttgaaagaag ccgggttctg gcaaacaggg 300
 gaatgcaaat cccgtattac agatcctttt cgg 333

<210> 868
 <211> 422
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-057-Q1-K1-E7

 <400> 868

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ctgcgcgggg ctgcagggtc tgtacggcgc tggcgccggc ctgacgacga tgatgggcgc 180
cagcgggctg taccctacg cggagtacct gaggcagccg cagtgcagcc cgctggcggc 240
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gtgctgccag cagcagatga cgatgatgga cgtgcaatcc gtcgcgcagc agctgcagat 360
gatgatgcag cttgagcgtg ccgctgccgc cagcagcagc ctgtactagc cagctctgat 420
gc 422

<210> 869

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E8

<400> 869

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ctacatctac caattgccca attgcaacaa caatcattgg cacatgtaac cctacatacc 180
atcgcaacgc atcaacaaca tcagctgtat ctgccatcac tgagccacct aaccgcgggtg 240
aaccctgtga cctactagca acagcaggtg ctagcatcca acccacttgc tctggcgaac 300
gtagctgcat accagcttca acaacagctg caacagttta tgccactgct cagtcaact 359

<210> 870

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-E9

<400> 870

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tacggctcat cctctccctt gtctctgtca cacacacaca ttcacatcc catccctgtg 120
acgggcgatc cgagggccta ccgacgatgg tgtccgccgt gctccggacc atcctcgtga 180
cggtcggcgc caggtacatc gtcagccaca cgggtgctgca gctgctgcat cagggcttcc 240

gcgtcgtcgt ctgtgacaac ctggacaacc ccttcgatgc cgccctcgtc ctgctcgcgc 300
agctcgtcag tcacgacggc gccaacctcg tcttccacat ggttgacctt tgcgacaggc 360
acgctttggg ggacatgttc tcgtcctaca agttcgaggc tgtcattcac tttgctgggc 420

<210> 871

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F1

<400> 871

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atttggggaa acaggccatg ccgggagacg ggggagcagc tggaagcgcg aggtggggtt 120
gcgcggtcct ttcggtgttc ccgccccgt ccaaggccaa gaacgccagc ttcgagcagg 180
gcgccaactt cgccatcacc ggcgccaccg cgctcgacac cgacttcttc cggaagcgag 240
ggctcggcag caccgtctgg aactccggct ccctccgcac gcaaattccag tggctgcgag 300
acctcaagcc atcgtctctg agctccgcgc aaggcacacg atgcaaggag ttcttcgccg 360
agtgcctgtt cgtcgtaagc gaattcgggtg ggaacgacta caacgcccc 409

<210> 872

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-F10

<400> 872

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gtggctggcg attttctgct ggttcttata cagacctat agaggcata ccaaaaaaac 120
cgcttacatc tgtaaataag acagtgaatg gcagttttgt tcgaccatcc aatgctgggg 180
gtgatgttta tctgtggaa tcttacgaga gctcatctaa ccaagtactt gatgctcact 240
ggggtgttct ggatgatgat gatgcaactg gactttgtc gcataacctg tacatccttg 300
ggaatgatcg tcttggtgtt atcaacattg taacaagagt ctttgctcgc aggggctaca 360
atatacagag ctttgctgtt ggctcatct 389

<210> 873
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-057-Q1-K1-F11

 <400> 873

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tcgggtagcc atggtagagcc gggccggata catacatcat cgacggctga ttaaataatac  120
ctcgttcgct gtgggctatg cacctacata cctgcaacaa caagacgatg caacacattg  180
gacgatctct gactcaacta aatgtttacaa accctgttgt ctacttgcaa cagatgctcc  240
cattcaagca actgactatg acgaactctg ctgagtacgt acgactacga catccattac  300
tgaatacaat ggtagtggtt aacccatcgg tcgacgactt cctacagcta gcacaatcga  360
tgccatacaa acagttgcct ttgactaatc ctgtattgaa gacgcatcaa ctaatacatg  420
gacgtgccat gttt                                     434
  
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<210> 874
 <211> 370
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-057-Q1-K1-D6

 <400> 874

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tccttatgct ccttggtctt tctgcaagtg ttgtaccgc aaccattttc ccacaatgct  120
cacaagctcc tatagctacc cttcttcccc catacctctc accagcgggtg tcttcaatgt  180
gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcattctac  240
cattatcacc cttgttctc caacaaccgt cagccctatt acagcagtta ccttaggtcc  300
atttggtggc aaaaaacatc aaggcacaac aactacaaca acttgcgcta gcaaaccttg  360
ctgcatactc                                     370
  
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<210> 875
 <211> 424
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C2

<400> 875

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cggattgccca tggccaccac ggcgttcgcc gccgccaggt tcttccccgc ccacctcgac 120
tcctccccac gcatcgcgcc ccaccgcgtc gggcccaccg cgaatctctc cttctcaccg 180
ctttccgccca actcctcgtc cctgctccgc ctccattccc cctgcccata cggccccggg 240
ggtaggctgc ccccgccgcc gcgatcgta ggcggcgccg gcggatctgg cgacgccgcy 300
aactccggtg gcggcgaaag ccgccgcgga ggcatactcg ggctcctcct cgccgggtgg 360
gccgtccgcy tcgctgcgga cccgcagttc cctttcaagg tgctcatgga ggagctcgtc 420
ggcg 424

<210> 876

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C3

<400> 876

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caggtacttc aatgggcttg gaacatccag ccgtgcaagc ctacaggcta caactagcgc 120
ttgcggcgag cgccttacia caaccaattg cccaattgca acaacaatcc ttggcacatc 180
taaccctaca aaccattgca acgcaacaac aacaacaaca acagtttctg ccatcactga 240
gccacctagc cgtgggtgaac cctgtcacct acttgcaaca gcagctgctt gcatccaacc 300
cacttgctct ggcgaaagta gctgcatacc agcaacaaca tcagctgcaa cagtttatgc 360
cagtgtcag tcaactagcc atgggtgaacc ctggcg 396

<210> 877

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C4

<400> 877

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gagatccatc ggagatgttt ggttttgtga aggaagtatt tcgaacatgt gcacaacaat 120

ggaggataga catgctgggt agagagttac agtatgtaga aagaatTTTT tctgcaagtg 180

aagatgtaag gggcaagagg gtccgggact tcgtgaagca gatgctaatt aagtcagaaa 240

acaaggccta tcatgctgaa gttgtcagat gtgtcattgc attcttttct gatgatgggtg 300

ctaaccttgg cagtgatcca tcagtaccac tgaaaggcat tccatgcagc atttctgaag 360

ctgttgatgg gattcctagt tcaagtcgga aagcatggat accatttacc ttagagggac 420

ttccagtttt agacaaa 437

<210> 878

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C5

<400> 878

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ttttgcttcc ttaggtcctt tgggtcttct gcaagtgttg ctaccgcaac cattttccca 120

caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcagtgtct 180

tcaatgtgtg aaaacccaat tggtcaaccc tacaggatcc aacaggcaat cgcaacaggc 240

atcttaccat tatcaccctt gttcctccaa caaccgtcag cctattaca gcagttacct 300

ttgggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360

aaccttgctg catactctca gcaacatcaa tttcttccat tc 402

<210> 879

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C6

<400> 879

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 ctcatcgacc tctcgctctt ggccgccagc ggcgggcgccg tggactcgct ggccgccgag 240
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 gagaccgtgg cgcgcgcgac ggatgcgcag cgcgcgcttct tcgcgctgcc ggagagcg 360
 aaggccgccc tgccggaggaa cgaggcggaa ccgctcgggt actacgagtc ggagcacacc 420
 aaggacgtga 430

<210> 880

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C7

<400> 880

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 cacgacggag gaggagccga tgctggccgt ggtccgcttc accgctgagc tcgcctgggc 180
 cgactcgggc ccggaagtgc ccgaccccga ggtcgcccgc ctatgtctcg aggcgcagga 240
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 cctactcacc tgcccgtcgc gcgtctcgga caaagacctg gagtgcgttc tctccgtcat 360
 ctgcagctc gtcaccaagg ccggatccga ggaccaggcg ctgcagatca ccgaactcat 420
 ctgcgc 426

<210> 881

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C9

<400> 881

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gaatctattc tagattcagc cagtgaagat acgtggccag ctattataaa gcttcttcaa 180
cgcgagacaa aaactgccgt ttcaagtctt caatctgctg cgtcagcttt tgaacttgat 240
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tcaaaggcaa aagaagaagc tggaagggtt tcgattccca tgaaggacag gtgttcaatg 360
ctgttcatcc gagatgctga ctctatgccc aggggtgtgga caggtaacga ggacataaaa 420
gctataacta aaaccg 436

<210> 882

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D1

<400> 882

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caaacttctg cttattggtg attctggtgt tgggaaatca tgcttgcttc tcagatttgc 180
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agtggagcaa gatgggaaga ccataaaaact tcaaatttgg gatactgctg ggcaagagcg 300
cttcaggaca atcactagca gctactaccg cggagctcat ggaatcatta ttgtatatga 360
cgtgacagac caagaaagct tcaataatgt gaagcaatgg ttgaacgaga tagaccgtta 420
tgcaagtg 428

<210> 883

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D10

<400> 883

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gacgcggtga tgttcgggct ggagactccc ctgatggccg cgctgcagca cctgctggac 120
gtgcccgcagc gcgacgccg cgcgggcggc gacaacaaga cgggcatcgg cggcagcgcc 180

acgcgcacct acgtccgcga cgcgcgcgcc atggcggcca ccccgccga cgtgaaggag 240
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gtgcaggtgg aggacgagcg ggtgctggtg gtcagcggct agcggcgccg ggaggagcgc 360
gaggactacg ccaagtacct gcgcatggag cggctgatgg gcacgttcat gcgcaagttc 420
gtgc 424

<210> 884

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D11

<400> 884

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tgatctattg agcttaccac atacctgcag cactcagtgt caaattgctt ttgagaatgg 180
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ggctcttccat gctgacagaa acggtttatg caacaaactt gaatgctgtg agtataggca 360
cttcggacgg acctcatgag tcatgtatca gtggacatat tg 402

<210> 885

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D12

<400> 885

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ctacgaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
ccattattcc acaatgctca cttgtctcta gttccattat tccacagttc ctcccaccag 180
ttacttcaat ggccttcgaa caccagctg tgcaagccta taggctacaa caagcgattg 240
cggcaagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300

caatacaaac catcgcaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgtcgcc tacttgcaac agcagctgct tgcaccaac ccacttgctc 420
tagcatacgt ag 432

<210> 886

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D2

<400> 886

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ggagcaggta gcatgcatgg cgctcgccac ccttgtagca cggacaacgc acttccttac 180
tccatgttta tgtccatggc gagcaggagt cattccgtcc catggccgac ggcttgcata 240
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ttcatggcgc ttgctacctg ctggagagca ggaggtgacc cattcaccac cgtacatgat 360
tggagcgcac aggggcagaa gcttcagggtg ccatggacgc cc 402

<210> 887

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-D3

<400> 887

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tgctcacaag ctcttatagc ttcccttctt ccccatacc tatcaccagc ggtgtcttca 180
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ttaccattat cacccttggt cctacaacaa ccgtcaacc tattacagca gttacctttg 300
gtccatttgc tggcactaaa catcagggca caacaactac tacaactagt gctagcaaac 360
ottgctgcat actctcagca acatcagatt cttccattca accaactggc tgcattgaac 420

tc

422

<210> 888
<211> 438
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-057-Q1-K1-D4

<400> 888

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tgccatctcc cagattgttg gggatgccaa ggagaagaat aggaagttca ctgagactgt 120
ggaacttcag attggtctga agaattatga tccacagaag gacaagcgtt tcagtggctc 180
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aatgaacaag aacaagaagc ttgttaagag gcttgccaag aagtaccatg ctttcttggc 360
atcagaggcc atcatcaagc agattccccg tctccttggg cctggtctca acaaggcang 420
caagttcccc accctggg 438

<210> 889
<211> 410
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C12

<400> 889

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caatgctcgc aagctactat agcttccatt cttaccccg acctctaacc agcgggtgtat 180
tcgggtatgtg aaaacccaat tcttcaaccg tacaggatcc aactggcaat cacagatggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca tcagttacct 300
caggtgcatt tattggcaca aaacatcatg gcacatcaac tgcaacaact tgtgctaaca 360
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<210> 890
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A6

<400> 890

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 ttccctcaat gtcacaagc tcctatagct tcccttcttc cccatacct tccatcaatt 180
 atagcttcag tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
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 cagtcattgg taaaaacat cagggcacia cagctgcagc aactcgtgct acctgtgatc 360
 aaccaagtag ctctggcaaa ctttctccc tactctcagc aacaacaatt tcttccattc 420

<210> 891
 <211> 406
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A9

<400> 891

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 ttattaaact actgtaattg ccattcatct catcatctat tctctagcat aactactact 120
 actaccactc tatctgctca ctaaacaag ctctgcaaac taccaccagc attcataact 180
 cagaatgtgc aagtttaatt tacttcatta ccacttaacc aataatatca acataagcct 240
 attcgtcttt aaagatccaa ccttaaaaaac acattcattc cacttaatac ctctctaat 300
 agtgttacct caaaccaatt cactaacctt caatttacia acgtatctac ttgtaaaacc 360
 ctaacatttc ccaaactaat tgtactacia ctaattcccc tttttt 406

<210> 892
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B1

<400> 892

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gggatgacgc gcgggaagca gaagatcgac gcgcagcggc gtaacgcgga gcgaaaccag 180
aaatccaagg ggtctcagct cgaggcccg cccgtcggcc tcaagatcgt ctgctccatc 240
tgcaaggtag aattggcaaa tgaaaaacag ctgaccgatc actatggatc aaagcatcca 300
aaggagaaaac cttcgagcac atcgagcacc gaataaccat ggctggctgt gacgcagaaa 360
tatagatcct tggctggttt gaggatcttt aagtccgtct gatccatgcc t 411

<210> 893

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B10

<400> 893

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accgggatat tagccctcct tgcgcttggt gcccttttag tgagcgcaac aaatgcgttc 120
attattccac agtgtcact tgctcctagt gccattatc cacagtctct cccaccagtt 180
acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg 240
gcgagcgctt tacaacaacc aattgcccaa ttgcaacatc aatccttggc acatctaacc 300
ctacatacca ttgcaacgca acaacaaca caacaacagt ttctgccatc actgagccac 360
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<210> 894

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B12

<400> 894

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ccaagcccgt gccagctgca gggaacctgc ggcgttggca gcaccccgat cctggggccag 120
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 tgccagtcgt tgccggcagca gtgttgccag cagctcaggc aggtggagcc gcagcaccgg 240
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 caggtcgcgg ggctgttggc ggcgcagata ggcagcaac tgacggcgat gtgcggcctg 360
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 gtgctgtagt atagc 435

<210> 895

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B2

<400> 895

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 aacaatacct ctctccggtg acagccgcga gatttgaata cccaactata caatcctaca 180
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 catatgccct attgcaacaa ccatccttaa tgaatctata tctccaaaga atcgcagcac 300
 aacaactaca acaacagttg cttccaacaa tcaatcaagt agttgcagcg aaccttgctg 360
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<210> 896

<211> 287

<212> DNA

<213> Zea mays

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<400> 896

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 agtagcctcg cgcactcgcc gactgacgac cctgccttga acgcgctggc cagatgatcg 180

gcacaaggaa tgccaagcag tactccaacg tccttgacaa gcccatctgc ccaggcatgc 240
aggatgccac atggagtga tgtgcatcgt ttgacatcag ccaattt 287

<210> 897

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B4

<400> 897

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gcaaggtgct ggcgctgcag cctgtggcac ctggcgagga ggcagataga gagctcacia 180
ggctgtgcct gtagaattct gggcccttgc caccacctc tactctgtgg ataatttttg 240
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aagaccattc tggttctctg ctgctactta tgagaggcgg attggaactg aagcagcctt 360
ccacaaatgg aggtgactgt gggttccggt ctgccattgt atagtccggg actagtgttt 420
ccattttcat ctc 433

<210> 898

<211> 240

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B7

<400> 898

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gcgcttgcaa gcaacgtctt aaaacaacca atttcccaat ttcaacaaca atccttggca 180
catctaacca tacataccat ttcaaacgca tcatctacaa acaactgagc caccttttac 240

<210> 899

<211> 405

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B8

<400> 899

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tgtcatttgg tttcgtgggt cttgctccga atcgacaatc gtgttggtttc tttgcaattt 180
gtttgtcatc tggtttcgta gttcttgctc cgaattggca ctctgtgttggt ttctttgcaa 240
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gaatgccttg agttcttata cataattctt atctgaattc tgaaatgatg cccgttgat 360
ttgttgacga ccgtatcaat ctgaatcttg attactgttt tcatc 405

<210> 900

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-B9

<400> 900

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cacaagctcc tatagcttcc cttcttcccc cgtaaccttc accagcgggtg tcttcgggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgcagct ggcattctac 240
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atttattggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
ctgcctactc tcagcaacag cagtttcttc cattcaacca actagctgca ttgaactctg 420
cttcttattt gcaacaa 437

<210> 901

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-C10

<400> 901

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 caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
 tcaatgtgtg aaaccccaat tggtcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
 atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
 ttggtccatt tgggtggcaca aaacatcatg gcacatcaac tacaacaact tgtgctagca 360
 aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
 aactctgctg cttatttgca acaacaatta c 451

<210> 902
 <211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-057-Q1-K1-C11
 <400> 902

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 caatgctcgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca tcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
 aactctgctt ctta 434

<210> 903
 <211> 403
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-057-Q1-K1-A5
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ccactgcctc ccactgctgc tcgtggccgc cgcctcgc ctcgccgcg tccctgctcg 120
cgcgggcgctg ggcgggcgggc gcggcccgt gctggggcgg tggaaccgga tccctgacgt 180
gagcgactcg cacatccagg agctaggcag gtggggcgctg gggcaggcga agcaccagaa 240
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cggcataaac taccggctct acgtcgacgc cgcgcacccc gccgaccgca ccgtgcccta 360
cgtcggtcgc ctgtacgagc aggtttggac ccggaccgct cag 403

<210> 904

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H11

<400> 904

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tcctgatgct gcttgatctt tctgcaagtgc ctgctaactgc gaccattttc ccgcaatgct 120
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atttattggc acaaaacatc aaggcacaac aactacaaca acttgtgcta gcaaaccctg 360
ctgcctactc tcagcaacag cagtttcttt cattcaacca actagctgca ttgaactctg 420
cttcttattt gcaacaac 438

<210> 905

<211> 463

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-H12

<400> 905

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tcgggggtcgt ctccgacgcc tacgaggtcg tcccgtcggc cagggccagg gccagcggcg 180
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 atggcgtcga ggactgcgcc gagttgctcg cgggccacaa tatcgtgggt agcggcgggg 420
 agcaattcgg aggagactcg cggtgcgta agatcaacat gct 463

<210> 906

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-H2

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 tgggtctttct gcatgtgttg ctaacgcgac catttttact caatactcac aagctcctat 120
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 ctttcaacct tacaggctcc aacaagcaat cgcaacaagc aacttacctt tatcaccctt 240
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 acaacagctg ctacaactcg tgctaccagt gatcagccaa ctactcttg caaaccttta 360
 ctctactct cagcaacaac aatnacttcc attcaaccaa ctgtctacac ttgaaccctg 420
 tgcttattta caacaac 437

<210> 907

<211> 294

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H3

<400> 907

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 agctgccctt cttcttccat accaccaatc aatgacctat tcacttcgtg aaatcttcaa 180

ccttcaacct aactgcctcc aacacacaat cccaacacac aactttactt cactaaacca 240

cctcatttaa caccgcgcaa ccatatctga tctcagtc tggcacaac ccat 294

<210> 908

<211> 267

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H4

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ttctgtcgct ccagttggta cgaggagatg ccgcggatcc ctctgatcag gttcctcaag 120

cggaatctca aagccccatc tccatccgcg ccagcggcgt cgcaaccgcg agaccagcac 180

gcgaccctca tggtccggtt aggggctaaa gcagaggcac catcttctgg agagattaaa 240

aattaccgct ttagatctga tgtgcct 267

<210> 909

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H5

<400> 909

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gcggctgtgg ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 180

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<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H8

<400> 910

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gcaacagtgc tgccagcagc agatgaggat gatggacgtg cagttcgtcg cgcaccacct 360
gcagatgatg atgcagcttg agcgtgccgc tgccg 395

<210> 911

<211> 302

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H9

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ctccgatccc tgctgcgagc aagggatggc ggcggcattg gcagagctgg cggctgtcct 180
cgtcgcgggc catgtggcgt ctgcggcgcc ggctactgag ccagcgttcc tgtgggcgcc 240
taataactac tgattccgct ctgatgatgc taaagacgtt gtccattatc aaacaatctc 300
ac 302

<210> 912

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A1

<400> 912

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cctgttctat tgcagggttg gtcagagaag ctaagtctgc agggcccaga gatcacatca 180
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 tccgaaagtg ctggggagga caactatata cccctgcaa gggatgatgac tgctccatcc 360
 aaaggcagac tggtagagccc ggacggcaat gagaaaacat cgcattgcaga gctatcccc 420
 aacac 425

<210> 913

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A10

<400> 913

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 tctcagcaac atcagtttct tccattcaac caactggctg cattgaactc tgctgcttat 420
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<210> 914

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A11

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<210> 915

<211> 379

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A12

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<210> 916

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A2

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c 421

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<212> DNA

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<223> unsure at all n locations

<223> Clone ID: LIB3061-057-Q1-K1-A3

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tttccctcaa tgctcacaag ctccatagc ttcccttctt ccccatacc ttccatcaat 180

gatagcttca gtatgtgaaa acccagctct tcaaccctat aagctccaac aagcaatcgc 240

agcaagcaac atacctttat cacccttggt tcaacaatcg ccagccctat ctttggtgca 300

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<210> 918

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-057-Q1-K1-A4

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cataccttcc atcaattata gcttcagtat gtgaaaaccc agctcttcaa ccatataggc 240

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cagccctatc tttggtgcag tcattggtac aaaccatcag ggcacaacag ctgcagcaac 360

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aacaatt 427

<210> 919
<211> 388
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-H10

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tgtgttccac aagaccactg ggatcaag 388

<210> 920
<211> 409
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-056-Q1-K1-F6

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cagcagtgcg gccctttggg aatngccttt ctncaatcac gtttgatac 409

<210> 921
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F7

<400> 921

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ggccttcgaa caccagctg tgcaagccta taggctacaa caagcgattg cggcgagcgt  240
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catcgcaacg caacagcaac aacagttcct accagcactg agccacctag ccatggtgaa  360
ccctgtcgcc tacttgcaac agcagctgct tgcattccaa ccacttgctc tagcaaacgt  420
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<210> 922
 <211> 382
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F8

<400> 922

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atcctccgcc ccgtcccagc ggcgacttgt ccgtgcgaag atgctggggg tctcgaccgg  180
acagctgctg gtcacacctg gggcctgctc cgtcatgatg aagcccagtg atatggtgaa  240
gattgcgagg acggccgggc ggatgactgg aagagcgggt gggcggtca tagtggctcg  300
acggcagctg gacgagattc tgggccagtc tgcagccacc caggttcata aggaggctaa  360
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<210> 923
 <211> 309
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G1

<400> 923

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ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt 180
atagcttcaa tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
gcaagcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttggtg 300
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<210> 924

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G10

<400> 924

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agctacctgc tgcctacccc cagcaatttc ttccattcaa ccaactggca gcattgaact 180
ctctgctta tttacagcag caacaactac taccattcag ccagctagct ggtgtgagcc 240
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ctggcacccct cttacaactg caacaattgc tgccattcaa ccaacttgct ttgacaaacc 360
cagcagcggt ctaacaacaa cccatcattg gtggtgccct cttttagatt tcttatg 417

<210> 925

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G11

<400> 925

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aagaggtttt gctccttat gtccttgcg tctttctaca tgtgttgcta acgcgacaat 120

tttccctcaa tgctcacaag ctcttatagc ttcccttctt tccccatacc ttccatcaat 180
tatagcttca atatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc 240
agcaagcaac atacctttat cgcccttggt gtttcaacaa tcgccagacc tatctttggt 300
gcacacattg gtacaaacca tcagggcaca acagctgcaa caactcgtgc taactctgat 360
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<210> 926

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G12

<400> 926

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cggactgtcc ggtggtgcac cggactgtcc ggtgagccaa cagtcggccg ggtcaacggt 180
cggccacgga atccgcgcgc gacgcgtggc aagtgccaac ggtcggatgg ggcaccggac 240
tgtccggtgt gcaccggaca gtgtccggtg cgccaacggc tccaagactg caatggtcgg 300
cttcgccaaa taaggaaaga gatccgcacc ggacagtgtc cggtggtgca ccggactgtc 360
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<210> 927

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G2

<400> 927

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aagacaagct tgcgcgcgcg atggaggggt tttcgagggg cttgctgtgc gggattggca 180
agggggacgc gccgccaccg gagaagaggc cggggcagct gcgggaggag atggaggagg 240
tggagcttag cctcgggctg tcgcttggcg gccgattcgg gctcgacagg aaggggagca 300

agctcccccg gtcgtcgtcc gtggcggcca tgctgacaac gccggtggag 350

<210> 928

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G3

<400> 928

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acggagccat gagcagtagc atcgttcaca acaacatcat ccacaaaaac aacaacatca 120

accactacca catcatcacc agctgcagca acaccaacaa caacaagttt acatgcaacc 180

acaaaaacat catcaacaac aagaagttca tgttcaacat cagctacaac aaccgcagca 240

ccaacaacaa caacaacaac aacagcacca acaacaacat caatgtgaag gccaacatca 300

acatcaccaa caatcacaag gccatgtgca acaacacgaa cagagccatg agcaacatca 360

aggacagAAC catgagcaac aac 383

<210> 929

<211> 316

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G4

<400> 929

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ggtgacctag ctctcgtgga gctagcttga agcgccacct gacgtacacg ctgcggatgt 120

gactgccaaa caccaccgtg acatataacg gcttcatcat atatgacgcc tgcgttctat 180

ctgcagacga aacagcagtc gcagccatgg caatacccca ctggatcacc gcaagtaact 240

ccgtgccagc cgtacatatg ctgcagggtc aagcgcttct atagtccatt tatgggccaa 300

tacgatcaga ttctga 316

<210> 930

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G5

<400> 930

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agatattatc cctgcttgcg cttcttgccg tttttgcgag cgcaacacat gcgttcatta 120
ttccacaatg ctcaacttgc ccaagttcca ttattacaca gttcctccca ccagttactt 180
caatgggctt cgaacaccca gctgtgcaag cctataggct acaacaagca attgcggcga 240
gcgtcttaca acaaccaatt tcccagttgc aacaacaatc cttggcacat ctaacaatac 300
aaaccatcgc aacgcaacag caacaacaat tcttaccagc actgagccac ctagccatgg 360
tgaaccctgc cggctacttg caacagcagt tgcttgcatt aaaccac 408

<210> 931

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G6

<400> 931

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tccagtccat cctgcagcag cagccgcaaa gcggccaggt cgcggggctg ttggcggcgc 180
agatagcgca gcaactgacg gcgatgtgcg gcctgcagca gccgactcca tgcccctacg 240
ctgctgccgg cgggtgtccc cactgaagaa actatgtgct gtagtatagc cgctggctag 300
ctagctagtt gagtcattta gcggcgatga ttgagtaata atgtgtcacg catcaccatg 360
ggtggcagtg tcagtgtgag caatgacctg aatgaacaat tgaaatgaaa agaaaaaaag 420
tactccatct ggtccaaat 439

<210> 932

<211> 453

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-G7

<400> 932

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ttatccctcc ttgcgcttct tgcgcttttt gcgagcgcaa caaatgcgtt cattattcca 120

caatgctcac ttgtccaag ttccattatt acacagttcc tcccaccagt tacttcaatg 180

ggcttcgaac acccagctgt gcaagcctat aggtacaac aagcaattgc ggcgagcgtc 240

ttacaacaac caatttccca gttgcaaca caatccttgg cacatctaac aatacaaacc 300

atcgcaacgc aacagcaaca acaattccta ccagcactga gccacctagc catggtgaac 360

cctgccgnct acttgcaaca gcagttgctt gcatcaaacc cacttgctct ggcaaacgta 420

gttgcaaacc agccacaaca acagctgcaa caa 453

<210> 933

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-G8

<400> 933

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ccttatgctc cttgctctat ctacatgtgt tgctaacgca acaatcatcg ctcaatgctt 120

acaagctcca atagctcacc ttctttccca atacctacca taaaggatag ctaacatatg 180

tgaaaacceca gctattcaac catataggct acagcaagca atcgagaca gcaacatacc 240

tttatcgccc ttgatgattc aacaatagac agacctatct ttggtgcagt cattgataca 300

caccatcatg gcacaacagc tgcagcaact tatgctacct gagat 345

<210> 934

<211> 217

<212> DNA

<213> Zea mays

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<400> 934

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gaaatctcac tcttcattac tagcacgcca ggatcaggtc acacaacacc gtgggataga 120

cctactacta actatatacc tactacattc tatcttccat cataacatca tcctcaacca 180
 ttgcaatacc tgactcaacc acctcaacta agcccat 217

<210> 935
 <211> 398
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-056-Q1-K1-H1
 <400> 935

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 ggcgcttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
 tcctatagct tcctttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcac caactagc 398

<210> 936
 <211> 350
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-056-Q1-K1-F5
 <400> 936

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 ctgagagaca caagcatgta gacacacaca tacgaccata atatatagga ggcatacaca 180
 ctaaaacgaa cacatgacat acaggaaatt aaactaagtt taaatcgctc attttccacg 240
 agacgaaaca cgagcacgga aatggcaag acaagagagc gacaccacca aacatgcatg 300
 catgggtatg tagttcacat gacactgcac gagggccccg cgccctgact 350

<210> 937
 <211> 378
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E10

<400> 937

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ttcggcgctg tagaagcatc tgcgatgcc a tccgcccga cttgaggcca tcatctccgg 120

attctgcagc eggattcaga gatcctctag atgtcttggg cccgctcccg acgacatcct 180

cgtctgcacc tacttcgaca gcttcttggg cacaatgct gctctttaag atgcttgtga 240

acaagtgatc gctggggaac aatattgtga tgttcttatt gggctgcacg taatccgtgg 300

agagaacgat gctttactcg gagaatcaga tcgcgaaaag gatcaactcc ctggtcacat 360

gacctgcggg tcagaagc 378

<210> 938

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E11

<400> 938

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aaatgttctg gctacttatg ctccctgggc tttctgcaag tgctgctaca gcgaccattt 120

tcccgaatg ctcacaagct cccatagcta tccttttttc cccgtacctc taaccagcgg 180

tgtctctccg catgtgaaaa cccaattctc taaccttaca ggatccaaca ggctatcaca 240

gctggcatct tacctttata accctctggg ctccacata tcattatccc tattacatca 300

ggtagccctg gggcatttat tgacacacaa cattagggga caacaaactc aacaacc 357

<210> 939

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E12

<400> 939

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aacggcagcg agcagctcga tcgctctgtc ctgcaataat ggccgctcgc tcttcctccc 120
 agcagctggg cgcggcgccg gtcctggcag cggcgctgct gctgctggcg gcggggggccg 180
 ggacggcgtc ggcgggcggtg agctgcggcg aggtgacgtc gtcgggtggcg ccgtgcctcg 240
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 tcaacagccg cgcgtcgtcg gcggcggaacc ggcaggccac ctgcaactgc ctcaagagca 360
 tgacggggccg gctcggcggc ggcgtcagca tggccaacgc cgccaacatc cccggcaagt 420
 gcggcgctctc cgtcgg 436

<210> 940
 <211> 339
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E2

<400> 940

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 tccgactacg ccgccgccgc ttctgaccag acggcgatgc ggaccgatcc cgcggacaga 120
 gcctcagagg agactgcgag ggtggatgtg gtatatgaga aggagcgtgt gaccatccac 180
 ccgtcgcagt atggttccag tcgtatcagc gggaagctgc gtctgtttct gcagcagggg 240
 tcattgttcc tgagttggga gccaaacgaa ggagccggct ctttgtcaac cagttcagtc 300
 ggtgtggaag tagaaaaata tagaaatctg tacactatc 339

<210> 941
 <211> 356
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E3

<400> 941

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 cattcaacca actagctgca ttgaactctg ctacttatta gcaccaccac caactaccat 180
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tgaactctcc tgcttattta cagcagcacc aactactacc attcagccag ctagctgggtg 300
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<210> 942

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-E4

<400> 942

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 aaaccactt gctctggcaa acgtagtgc aaaccagcca caacaacagc tgcaacagtt 180
 tctgccagcg ctacgtcaac tagccatggt gaaccctgcc gctacctac aacagcaaca 240
 actgctttca tctagccgc tcgctgtggc caatgcacct acatacctgc aacaacaatt 300
 gttgcaacag attgtaccag ctctgactca gctagtgtg gcaaaccctg ctgcctactt 360
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<210> 943

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E6

<400> 943

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 gctcgtggtg ggccgcggcc ccatcggcct ggtgtcgtcg ctggcggcgc gggccttcgg 240
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 gggcgccggac gcggcggtgc ggggtgtgcc ccgcgcggag gacctggcgg acgaggtgga 360
 gcgcatgcgc gcggtcatgg gctcggacat cgacg 395

<210> 944
 <211> 423
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-056-Q1-K1-E7

 <400> 944

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 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcgggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcattcttacc 240
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 tttattggca canaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
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 ttc 423

<210> 945
 <211> 304
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-056-Q1-K1-E9

 <400> 945

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 acaattttcc ctcaatgatc acaagctcct atagctatcc tttttgcccc ataccttaca 180
 taaatgatag cttcagtatg tgaaaaccca gctcttcaac cctatctgct ccaacaagca 240
 atcgcattaa gcattcatacc ttataaacac ttgtttcaac aatcggcagc cctatttttg 300
 gggc 304

<210> 946
 <211> 338
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F1

<400> 946

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aatagagcta ccaagatggg acttcatata tgcgcttggt gagctatacg cgcgcgcacc 120

cgctgctact attagacccc agcgtcact cgctcatata cgaccattat aaataggagg 180

catacacact actacgaacg catgacgtac aggaaattga gctagcctaa aagcgacaat 240

ttgccatgac accaaacagt atcacacaac ctggcaggac atgagagcga cactaccaga 300

catgtatgca tgggcatgcc gtccacatga cactgcaa 338

<210> 947

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F10

<400> 947

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atatgcaggg catctgcctc tgaaggtggt gcacagctca caccatcagg tgtaatctcc 120

agtagccct cgctgggaaa caattctggg ttctactcta gtgttactgt gctgaaaagg 180

gcctttgaga ttgctagctc gcaaactcag gttgaacagc cactttgtct ggaatgtatg 240

agggttcttt ctgataagat ggataaggag attgaagatg ttaatgctga tattaaagct 300

tatgaggctt gtcttcaacg tttggagcag gaaccttaca acatcctcag tgaaacagat 360

tttcaaaagg agaaacaaaa gattgaggaa gaggaaaaga aacttaaagc tgctattgaa 420

gaagctgaaa aac 433

<210> 948

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F2

<400> 948

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 gttgcatacc aacaacaaca acaattgcaa cagtttctac cagcgctcag tcaactagcc 180
 atggtgaacc ctgccgccta cctacaacag caacaactga tttcatctag ccctctcgct 240
 gtgggttaatg cacctacata cctgcaacaa cagttgctgc aacagattgt accagctctg 300
 actcagctag ctgtggcaaa ccctgctgcc tacttgcaac agctgcttcc attcaaccaa 360
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<210> 949

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-F3

<400> 949

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 ttggtttggg tgctactagt agggagaata agacatcatg gcctgaggtg gtgggcatgt 120
 ccatcaagga ggcaagagag atcattctta aagacttgcc caacgctaac attcaagttc 180
 taccggttgg ctacgtttgtg acccaggatt ttgcacctga ccgtgttcgc atcttcgttg 240
 atattgttgc ccaggctcca acagttggct gacaaggaga ttccttatct ataggccaaa 300
 taaacaaagc ctacttttat gtatcatggc taataaaacc tacatttctt ggttatcctt 360
 gattggttta gcttattagc tatatcacca tcaaaaggag gaccgagaaa ttccatgtat 420
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<210> 950

<211> 423

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-F4

<400> 950

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ggcgccggcg ggctgtaccc ctacgaggag tacctgaggg agccgcagtg cagcccgtg 180
 ggggcccgc cctactacgc cgggtgtggg cagccgagcg ccatgttcca gccgtcccg 240
 caacagtgt gccagcagca gatgaggatg atggacgtgc agtccgtcgc gcagcagctg 300
 cagatgatga tgcagcttga gcgtgccgt gccgncagca gcagcctgta cgagccagct 360
 ctgatgcagc agcagcagca gctgctggca gcccagggtc tcaaccccat ggccatgatg 420
 atg 423

<210> 951

<211> 349

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-E1

<400> 951

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 tggcgccgat agctagcatg atggcgtcca aggcgtcct cgtgctaacg ctctgtctcg 120
 tcgccacctt gctcgccgcc tccgataacg agcaagccca ggcggccaac gaggagaaga 180
 aggtggaggt ccaagactgg cacggcggct gcggctaccc gggtcacggc ggctgtggcg 240
 gttgctgata cccgcactga cgactgcgt gctgccaccg cgggtaccat agcggctgtc 300
 ggtgctgtc gcaccctgat cagataccag agcccatgta ccgtgctga 349

<210> 952

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C5

<400> 952

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcgc 60
 tccttatgct ccttggctctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcatcttac 240
 ctttatcacc cttgttctc caacaatcat cagccctatt acatcaatta cctttgggtgc 300

atttattggc acaaaacatc agggcacaac aactaccaca actt

344

<210> 953

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C6

<400> 953

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ttccttgaac gtaaaagcat tcttctctga tatctgtaac tgtaaaaaga ttattgttct 120

ataactatct gttatttatt gttccatcgc tacctcacta cctatttcct atctgatggt 180

ttgctataac atcgccatcg ctgtgttggt cagacttaag ttatgtgatg cttgttcttt 240

ttagatgtaa atcctacaat tttcgctcc aaagtcaccc attacaatat tttttactga 300

atctatatct tttacttatg tgtcactctg cattttttta gattcaaaaa aacattcctt 360

at 362

<210> 954

<211> 361

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C7

<400> 954

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tcccttgata tgctacgcgc tcttcctaca tgtgttgcta acgcgacaga ttatcgtaa 120

tgctcacaag ctctatagc gtccttctt tacctatact atttcatcaa ttatagctgc 180

agtatgtgaa caccagcat cttcaaccat atacgcatta acaagcaatc aactaggca 240

acataccatg atcgtcctag aagtttcaac aatcaccagc cctatctctg gagcagtcac 300

tggtacaaac catcatagta cagcagctgt agcaactcgt gctaactgag atcaaccaag 360

t 361

<210> 955

<211> 428

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-056-Q1-K1-C8
 <400> 955

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cccacgcgtc cggcatacgc tccactccgt agtgccttcc agcgcgacga aatcatcgag   60
ttcgtgaagg aggcagggcg tggcggaaag ggaaaccttc ctctgaacga tgcacctaca  120
gtagtgcgtc ccgagccgtg ggacggcaaa gatggagagg tcattgagga ggatgaattc  180
tccctcgacg agctcatggg cgacagctcc tcagcaaacg atgagttgtg attctgatga  240
ttcttggact gatctgcgtg tcgattagcc agactgtaaa tctgaggaac tctgttttga  300
aaaatcattc cttgagtgtc ataattttcc aggcctatgga tgctagaatg gattaaggag  360
aactgatgtg atagacattt tctttaacgt ttttttttat cctggagtt aaggcaattt  420
ggaacggt                                     428
  
```

<210> 956
 <211> 373
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-056-Q1-K1-C9
 <400> 956

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cccacgcgtc cgcgcccgtc tacgaccaca ttatcgctcc gttcgcgcgc cgcgtgacgg   60
ggacgcgaga cgggcatcac gcacctgcag cgcacgcgca cggggctggt gatgtccgtc  120
gtcgcgatgg ccgtggccgc cgccgtcgag gtgaagcgca aggacgtggc gtccagcagc  180
gggatgctgg aggactccgg gaagccgctg cccatcacct tcttctggat cgcgttccag  240
tacctgttcc tgggggtccgc ggacctgttc acgctggcgg ggctgctcga gtttttcttc  300
agcgaagcgc cgnccgggat gaagtgcgtg gcgacgtcgc tgtcgtgggc gtcgctggcg  360
ctgggggtatt acc                                     373
  
```

<210> 957
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D1

<400> 957

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cgggggggta ggtccggcga tctgggctgc tgtggcgcg taagggagga agcggagccg 120
cgacaggatg cactcgtttg ggcaccgcgc caacgcggtg gcaacgtttg cggtcaccat 180
actggccgcg atgtgcttcg ccgtctactt ctcgcacaat tttaacaccc tgacaccac 240
cgcatccgtc aagatcttga atataaactg gttccagaag gaggccaacg gcaatgacga 300
ggtcagcatg acgctgaaca ttctggctga cctttcatct cttttcacgt tgaacacaaa 360
acaggtatatt agttgtgtgg cagcagagta tgagactcga caaatgctt taaatc 416

<210> 958

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D10

<400> 958

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caaggagacg accaccagc gccacgatga cctcggcaag cgctgcgcta agtactacga 120
ggccggtgcc cgctttgcc agtggcgctg tgttctcaag attggcccca acgagccgct 180
acagcttgcc attgacctga atgctcacgg tctggctcgc tacgccatca tctgccagga 240
gaacggtctg gtgccaatg ttgagcctga gatccttggg gatggccctc atgacattga 300
tcggtgcgct tacgtcactg agacagtcct tgcctggctgg tac 343

<210> 959

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D11

<400> 959

aaaatatttt gctccttat gctccttggc cttctctcaa gtgctgctac ggcgaccatt 60
ttcgggcaag gctcgaagc tcctatagct tcccttcttc ccccgtaact atcaccagcg 120

gtgtcttcgg catgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcaca 180
gctggcatct tacctttatc acccttggtc ctccaacaat catcagccct attacatcaa 240
ttacctttgg tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggt 300
ctagcaaacc ttgtgacta ctatcaacaa cagcagcttc ttccattcaa ccaactagct 360
gcattgaact ctgcttgta tttgcaacaa caacaactac cattcatcca gctacctgct 420
gtctacacc agcaa 435

<210> 960

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D12

<400> 960

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gccagaatat ggtgcctact tatgctcctt ggtctttctg caagtgtgc tacagcgacc 120
atthtccgc aatgctcgca agctcctata gcttcccttc ttaccccgta cctctcacca 180
gcggtgtctt cagtatgtga aaacccaatt cttcaaccct acaggatcca acaggcaatc 240
gcagctggca tcttaccttt atcacccttg ttcttgcaac aatcatcagc cctattacaa 300
cagttacctt tggcgcctct attggcacia aacatcaagg cacaactact acaacaactt 360
gtgctagcaa accttgctga ctactctcaa caac 394

<210> 961

<211> 374

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D2

<400> 961

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gggctttctg caagtgtgc tacggcgacc atthtccac aatgctcaca agctcctata 120
gcttcccttc ttcccccgt a cctctcacca gcggtgtctt cggtatgtga aaacccaatt 180
cttcaaccct ataggatcca acaggcaatc gcagctggca tcttaccttt atcacccttg 240

ttcctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt attggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
caacaacagt ttct 374

<210> 962

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D3

<400> 962

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cgaccaagat attagccctg cttgcgcttc ttgccctttt agtgagcgca acatatgcag 120
ttcattattc cacagtgtc acttgctact agtgccatta ttccacagtt gctaccacca 180
gttacttcaa tgggctttga acatccagcc gtgcaagcct acaggctaca actagcgctt 240
gcggttagcg cttacaaca accaattgcc caattgcaac aacaatcctt ggcacatata 300
accctacaaa ccattgcaac gcaacaacaa caacatcaac agattctgcc atcactgatc 360
cacctagccg tgggtgaacc tgctacctac ttgcaacatc agctgcttgc attcaacccc 420
acttgctctg gcgaacgta 439

<210> 963

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D4

<400> 963

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ctgctaacat attagcgctt gcctgtgcgc tatctatgcc cttcatagtg agtcacaaca 120
ctatgcattt cattattcca cactgctcac ttgctactag tgccattatt ccacagttac 180
taccaccagt tacttcaatg atcttataac atccatcctt gcaagcctat atgctactac 240
ttacgcttgc tgctagcacc ttacatcaac caattacaca attgcaacaa caatccttgg 300
cacatataac cctacaaacc attgcaactc accaacaaca tcttcaac 348

<210> 964
 <211> 387
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D5

<400> 964

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aaacacatca cgcggaagcgc actatcaaca acctaacatc aatggctacc aagatattat   60
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gctcacttgc tactagtcc attattccac agttccttcc accagttact tcaatggcct  180
tcgaacaccc agctgtgcaa gcctataggc tacaacaagc gattgcagcg tgcgtcttac  240
aacaaccaat tgcacaattg ctacaacaat cctcggcaca tctaacaata cagaccatag  300
caacgcaaca gcaacaacag ttgctaccag tactgagcca cctagccatg gtgaaacctg  360
tccactactt gcaacatgaa ctgcttg                                     387

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<210> 965
 <211> 406
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D6

<400> 965

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ctcctatagc ttcccttctt ccccatacc tctcaccage gatgtcttca gtatgtgaaa  180
atccaattct tctaccctac aggatccaac aggcaatcgc agcaggcatc ttacctttat  240
cacccttggt cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat  300
tggcacaaaa catcagggca caacaactac aacaactcgt gctagcaaac cttgctgcct  360
actctcagca acagcagtta cctttggtgc atttggtggc acaaaa                               406

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<210> 966
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D7

<400> 966

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gtgccccggc ggcaaagact gcaggtgcac gtccggggagc ggccgggcagc gggagcacac 180
gacttgccgc tgcggggagc actgcgagtg cagcccgtgc acgtgtggcc gggccacgat 240
gccgtccggc cgcgagaaca ggagggctaa ctgctcctgc ggagcgtcct gcaactgcgc 300
atcctgcgcc tcggcctgat ccgtgcgcct cgcctcctgc ctaccgcgt gcctagtga 360
gggagttgtc tagtgaggct ggagacgaag caactagcac tacttctaataaaaaggcttg 420
tgtcatgct 429

<210> 967

<211> 331

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-D9

<400> 967

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tcaggatatct agctccatta accatgaagc tggggctagt agctattgct ttgatagctt 120
tagtatcaag tgttttattgt acacatacaa tccactgcag ctgaagccaa caacaaactc 180
atgagcagca acataattca caactacatc atccacaaaa acaacaacat gaaacaccac 240
cacaacattt ccagcatcat catacccaac ttcaacaagt tcatattcaa actcaaaaac 300
attctgctca accataaatt caatttcaac a 331

<210> 968

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C4

<400> 968

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tgctacctct gatcaaccaa gtagctctgg caaacctttc tccctactct cagcaacaac 120
aattttctcc attcaaccaa ctgtctacac tgaaccctgc tgcttatttg cagcaacaac 180
tattaccatt tagccagcta gctactgect actctcagca acaacaactt cttccattta 240
accaattggc cgcactgaac cccgctgctt atttgcagca gcaaatacta ctaccattta 300
gccagctagc tgcagcaaac cgtgcttctt tcttgacaca gcaacagttg ctgcctttct 360
accagcagtt tgcggtctaac cccgcaaccc tcttacaact acaacaat 408

<210> 969

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A8

<400> 969

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cctcaatgct cacaagctac tatagcttcc cttctttccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctattcaa ccctataggg tacaacaagc aatcgagca 240
cgcaacatac catcatcacc cttgttataa caatcgacag ccctatctct ggtgcagtca 300
ttggtacaaa ccatcaaggc acagccactg catgcacttg tgctacctga gatca 355

<210> 970

<211> 264

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A9

<400> 970

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ggagaggagg aagatgaggg agtgcactct cgtccacatc gggcaggccg gcatccaagt 180
cggcaacgcg tgctgggaac ttactgect cgagcacggc atccagcctg atggccaagt 240
gcctggagat aagaaccggg gaca 264

<210> 971
 <211> 380
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B1

<400> 971

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acgcataaaa tagctgcact tactatgagt agatctgata cgtccctttt taaagaagct   60
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attgcagacg aggttaccgg gagtttgggt gatcttcctg ttttacttgc tctaatagaga  180
gtcgtccaaa gtcttctcgg taatccacat attcatattg caccttattt gcaccagctg   240
atgccatcaa tgatcacttg cattggtgcg aaaaggctac ggcataagct ctcagataac   300
cactgggaac tttaggactt ctctgacaat ttggatgcct tggtagtca aacgcttggt   360
catgtctatc acacctttaa                                     380
```

<210> 972
 <211> 376
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B10

<400> 972

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tgcggtatgg tgcccttgct ctctggcgc tcgctgcgag cgccgcctcc agtacaagcg  120
ggggtgtggt ctgccagaca ccaccgtttc atctaccgcc ttcgttctat atgccgcctg  180
cgttctatct gccgcgcgag cagcagccgc agccatggca atacccact caaccaccgc  240
agctaagccc gtgccagcag ttcggatcct gcggcgctgg cagcgctggc agcccgttcc  300
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cgccacagtg ccaagc                                     376
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<210> 973
 <211> 61
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B11

<400> 973

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a 61

<210> 974

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B12

<400> 974

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atagcttccc ttcttcccc atacctctca ccagcgggtgt cttcaatgtg tgaaacccca 180

attgttcaac cctacaggat ccaacaggca atcgcaacag gcattctacc attatcaccc 240

ttgttctctc aacaaccgtc agccctatta cagcagttac ctttgggtcca tttgggtggca 300

caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc tgcatactct 360

cagcaacatc agtttcttcc attcaaccaa ctggctgcat tgaactctgc tgcttatttg 420

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<210> 975

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B2

<400> 975

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gctgtgtgtg ctgccagaca ccaccgtttc atctaccgcc tacgttctat atgccgcctc 180

cgttctatct gccgccgag cagcagccgc agccatggca atacccact caaccaccgc 240

agctaagccc gtgccagcag ttcggatcct ggggcgtcgg cagcgtcggc agcccgttcc 300

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<210> 976

<211> 347

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B3

<400> 976

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agaaggctgt gcgaagggaa gaagacgcgg cgggagagaa gggcgacatg gagaggccgg 120

cgcccgtgag gaagtccac acgtcgacgg cggacctgct ggtctggccg gaaggtgcgc 180

cgtaggagtt gcccgccggg ttcacgcctg catccaaccg gcggccgcac cagtcgtcag 240

aggcgctcat gaaggcggcg ttctgcggcc aactgacgca tgctgaggcc gagagcctca 300

acacgaggaa accatgctct gattctgagt ggaaggagat gacagga 347

<210> 977

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B4

<400> 977

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ctgtatcacc cttgttcttg caacaatcat cagccctatt acaacagtta cttttggtgc 120

atttattggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 180

ctgectactc tcagcaacag cagtttcttc cattcaacca actaggttca ttgaactctg 240

cttcttattt gcaacaacaa caactaccat tcagccagct acctgctgcc taccctcagc 300

aatttcttcc attcaaccaa ctagcagcat tgaactctcc tgcttattta cagcagcaac 360

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<210> 978

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B5

<400> 978

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cattcaacca actgacagct ttgaactctc ctgcttattt acagcagcaa caactactac 180
cattcagcca gctagctggg gtgagccctg ctaccttctt gacacaacca caattgttgc 240
cggttctacca gcacgctgcg cctaacgctg gcacctctt acaactgcaa caattgctgc 300
cattcaacca acttgctttg acaaaccctc cagcattcta ccaacaaccc atcattgggtg 360
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<210> 979

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B6

<400> 979

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cttttggccc cagatgcgcc gtgatgtcga gcgccttggt gcacgctgca ctacttgtca 120
gaaagccaag tcacgattga gcaaccatgg tttgtatatg cctttgccta tccctacgtt 180
cccttggctt gatatttcta tggacttcgt tttgggtttg cctagaacta agaaggggag 240
agatagcatt attgtgggtg ttgatagatt ctccaaaatg gctcatttta taccctgtca 300
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<210> 980

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B7

<400> 980

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atggttggct gggggcagcc ggtctaacca agtctcctga tgtaggggca gtaattgcac 120

cccacgctgg ttattcatac tcgggccgat gtgcagctta tgcttttggc aacatcgatc 180
 caactaacat ttctcgggtg tttctgcttg gcccttctca tcactactac actccaaaat 240
 gtgctttaac cagggcttct gtctactgta ccccaatcgg ggatttgcca gtagaccagg 300
 aagtcattga ggaactcagt gctactggaa agtttgaatt tatggacctt aatgtggatg 360
 aagctgaaca tagcatggaa atgcatttgc ccctacttgc taaagtatt 409

<210> 981

<211> 278

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B8

<400> 981

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 acgatgggtct ggaggctgca ctggtaaccg actgttacta tattaagga gtaattgtaa 120
 cagagactaa tgatgcataa ttggctagag gaacagttat atctagttaa cgtatgacat 180
 gcacttacat gtctcgacag tcgacaatga tcagtacttg tctatatgac agttctgcat 240
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<210> 982

<211> 233

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-B9

<400> 982

ctccgacacg ggccgggact tctcggactg caggcagcca ggcacgcacc agcaacaccc 60
 cccggccgcc ggctcggagc ggggccccac ccgaatcaca cagatcggga cgccggagga 120
 ggagcaacgc cgtcccgcat caccggagca acgcgggcgc ggagaggcca gccagcgcag 180
 gcgcagttca agctttggat tcccggatcc cacaccaccg ggctctctcg ggg 233

<210> 983

<211> 175

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C1

<400> 983

acgctcagct gaagcgcgac aagcatgcgt ataggtcatg cctgagcagc ggataaatatt 60
gacacgcctc ttattctctg gagcttgctt actgtgtaag tcttcagata ttcttctaga 120
ttgtgtgcct agaacgcatt gccccatta ttagtactga cttgtgagca tatgt 175

<210> 984

<211> 165

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C10

<400> 984

attctccggt cgaccactc gtccaccac acgtctcac cttctacca ccctattatc 60
attccattca cacaccttgt gactccatag gcaagtttca tctttcacct ggggctcata 120
cactcacatc tgctcacacc tctcattatg atataccttc tctac 165

<210> 985

<211> 323

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C11

<400> 985

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gcaagcctat aggctacaac aagcaattgc ggcgagcgtc ttacaacaac caatttccca 180
gttgcaacaa caatccttgg cacatctaac aatacaaacc atcgcaacgc aacagcaaca 240
acaatttcta ccagcactga gccacctagc catgggtgaac ccttgcgctt acttgcaaca 300
gcagttgctt gcatcaaacc cac 323

<210> 986

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C2

<400> 986

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caatttcttc cattcaacca actggcagca ttgaactctc ctgcttattt acagcagcaa 180
caactactac cattcagcca gctagctggg gtgagccctg ctaccttctt gacacaacca 240
cagttgttgc cgtttctacca gcacgctgcg cctaacgctg gcaccctctt acaactgcaa 300
caattgctgc cattcaacca acttgctttg aaaaacctag cagtgttcta ccaacaaccc 360
atcattggtg gtgccctctt tttagatttc ttatgagtta tagttcaata ataaagtttt 420

<210> 987

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A7

<400> 987

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ctaattgtctg gaatcccagc tatcttctcc cactttgtca ccaatctgcc tgcgttccac 180
caggtactgg tattcctatg tgtcaaatca gttcctgtgc cacatgtgca accggaggaa 240
cgatttctgg tgggtcgcat tgggtcaaaa gagtataggc tatacagggt cattgtcaga 300
tatggttatc gcgatgtgca gaatgatgac ctgcagttcg agaaggagct agtcagcaac 360
attgcaaagt tcatccgcag caatggggat tatgacaaga atggcttcct ggaggacaca 420
gata 424

<210> 988

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-C3

<400> 988

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gcatcacatg ccaataagct ataggcctat agccttggag gttgtcgaaa tgtcattttt 180
tggcattcat agaaggcggt agagtctagg ctttgaaagt tactggagga cttgcaactc 240
gattacttac ttaacagggt taaaaattga aggtcaaaat agcacatagt gccttcagca 300
aatggtgtgt gtaccatgga ggtaaaataa tgacaagggg gagaatctag atggacatct 360
ggattgggtc ctttggacta cta 383

<210> 989

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H2

<400> 989

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gtgacgccgc agttcagcgt cgcccgctg gtcctgatga ggaacctggg gttcgtggcg 120
tgcgtcgcca acctcagggg cggcggggag tacggcgagg gctggcacag ggccgggtcg 180
ctcgccaaga agcagaactg cttcgacgac ttcgtcgccg ccgccgagtt cctcgtgtcc 240
gctggctaca ccagccccgc gaggtgtg gtcgagggcg gcagcaacgg gggcctcctg 300
gtagctgcct gcgtgaacca gcgccctgat ctgtttgggt gtgccctggc ccatgtcgga 360
gtgatggaca tgctacgggt ccacaagttc accattgggtc gtgcatggac atgcgacttc 420
g 421

<210> 990

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H3

<400> 990

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caagctccta tagcttcctt tattccccca taccttctat caatcatagc ttaagtatgt 120

gaaaacccaa ttcttaaccc ctataagatc caacctgaaa tcaaagcaag caccatacct 180
 ttaacacctt tgtactttaa aaaacctoga gccctataat ttaagcaccc ttgggtacaa 240
 tccatttcca cacattatct acaaaaaatc atgctccctc tgatcaacca ttcacatctg 300
 tcaaccctct ctacctacta tgagcaccca tctttttctt gcatccaaaa aactgtctac 360

<210> 991

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H4

<400> 991

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 cacaagccaa agtattgaag caaacaagga cataagtaga agacggtaag agtgcattgca 120
 tgaaacatta attctactca tgatcgacca cgacacacaa caattgagca cgcattgcaag 180
 ctgttttttt attcagaaga tcccgaggag cggggacgac gacgacgtcc tgctgtctct 240
 gcatgcatgt agtcctctac gcacgacggc ggtcgcccga gctcggcgcg ggctcctcct 300
 cctcctcggc ggccggggcg gcgacgaggt gctcgttagac gacgccggag aggccggcg 360
 cgaccatggg cccacccag tacaccatt ggtgtctcca gcgacgggag cccacgacgg 420
 cgggcccga cgcgcgcgc g 441

<210> 992

<211> 251

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H5

<400> 992

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 tttgcctcct tatgtctcgt ggtctttctg caagtgtctg tacggcgacc attttcccg 120
 aatgtctgca agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt 180
 cggatatgtga aaaccaatt cttcaaccct acaggatcca acaggcaatc acagctggca 240
 tcttaccttt a 251

<210> 993
 <211> 423
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H8

<400> 993

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tcgtggatgg ccgtcctcct tgataccttg cctcgcgagt gctctcgggtg agctactttg 120
ttttgattta tcaggaaatc cgtttgcttc atgttatgca ggctcagatc tgattgctgg 180
attcggcatc ttacgggctt gaatagagct aggactggga gaaaacaaca aaccgcggtt 240
ggatcctgta tcggttagtc cttgccttca aggttcatgt tgttttgttt tggtggtcga 300
gcatcgcatg ttctgcttct ggttccagat ctggagaaat ttctaagtcg tcgtcgtcgt 360
cgtcgttcgg ttccggagcgg atctgaggcg acgatggctg gaggcggcgg gatctcttgg 420
tct 423
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<210> 994
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H9

<400> 994

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cttgctcttt ctgcatgtgt tgctaaccg accatttttc ctcaatactc acaagctcct 120
atagctgccc ttcttcccc ataccttcca tcaatgaccg ctttagtatg tgaaaacca 180
gcccttcaac cctacaggat ccagcaagca atcgcaacaa gcaacttacc ttatcacac 240
ctgttctttc aacaatcgcc agccctatct ttggtgcagt cattggtaca aaccatcagg 300
gcagaacagt tgcagcaact cgtgctacca gtgatcagcc aagtagctct ggcaaacctt 360
tccccctact ctgagcaaca acaatttctt ccattcaacc aactgtctat actgaacctt 420
gctgcttatt tgcagc 436
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<210> 995

<211> 338
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-056-Q1-K1-A1

 <400> 995

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 tcggtgcgct tcttgcgctg tttgcgagcg caacaaatgc gttcattatt ccacaatgct 120
 cacttgctcc aagttccatt attacacagt tcttcccacc agttacttca atgggcttcg 180
 aacacccagc tgtgcaagcc tataggctac aacaagcaat tgcggcgagc gtcttacaac 240
 aaccaatttt ccagttgcaa caacaatcct tggcacatct aacaatacaa accatcgcaa 300
 cgcaacagca tcaacaattc ctaccagcac tgagccac 338

<210> 996
 <211> 286
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-056-Q1-K1-A10

 <400> 996

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 atagtggccg tgcttatgct ccatgcggctc tctacatgtg atgttcacgc gacaattctc 120
 cactaatgct cacacgctcc tatagctact gttattaccc cataccttcc atcattaata 180
 gcttcagtat gtgataacct atctcttcaa ccatatagge gttaacatgc attctcagct 240
 agcaacatac ctttatcgcc cttgtaagct caacaatcac caaccc 286

<210> 997
 <211> 272
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-056-Q1-K1-A11

 <400> 997

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 atagggcccg tgcttatact ccatgcggct tctacatgcg atgttcactc gacacttata 120

cctcaatgct cacaagctcc tatagcttct cttattcccc cataccttac atcaatgata 180
gcttcactat atgaaaaccc tgctcttcat ccttataggc ttcaacacgc aatcgagca 240
agcaacatac ctttatcaca cttgtcatat ca 272

<210> 998

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A12

<400> 998

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gctccttggt ctttctgcaa gtgctgtac cgcaaccatt ttgccacaat gtcacaagc 120
tcctatagct tcctttcttc ccccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
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acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgctgctta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactgggt gcattgaact ctgctgctta 420
tttgcaacaa caactaccat tcagtcagct agc 453

<210> 999

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A2

<400> 999

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ccgatatatt ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca 120
tttttctca atactcaca gtcctatag ctgcccttct tccccatac cttccatcaa 180
tgaccgcttc agtttggtgaa aaccagccc ttcaacccta caggctccaa caagcaatcg 240
caacaagcaa cttaccttta tcaccctgt tctttcaaca atcgccagcc ctatctttgg 300
tgcagtcatt ggtacaaacc atcagggcac aacagctgca acaactcgtg ctaccagtga 360

tcagccaagt agctctggca aacctttctc cct

393

<210> 1000

<211> 386

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-056-Q1-K1-A3

<400> 1000

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ctagactgtt tttggataga gtagtagtta gtgatttctg aaccgactat catcactgca 120

atctttcatg ttctttttat ttagtctcac tttgtctctt tttcattaat gggtttattcg 180

tggacatfff caacttctac catcaaact tctgaagttg gaactttatg ttctattcaa 240

ttattttacc cataaaaaga acttggattt attttatacc ttttatctct actactactt 300

aagtgtctat tgtaggcgtc cacaaagacg gatgggtgcac gggttctgccg gttccgcatt 360

ccgccggatt gggatgattt cggcat 386

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<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A4

<400> 1001

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tttctgcatg tgttgctaac gcgacaattt tccctcaatg ctcacaagct cctatagctt 120

cccttcttcc ccatacctt ccatcaatga tagcttcagt atgtgaaaac ccagctcttc 180

aacctatag gctccaacaa gcaatcgag caagcaacat acctttatca cccttgtttc 240

aacaatgcc agccctatct ttggtgcagt cattggtaca aaccatcaag gcacagcagc 300

tgcagcaact cgtgctacct gtgatcaacc aagtagctct ggcaaactt tctccctact 360

atcagcaaca acaatttctt ccattcaacc aactatctac actgaaccct gctgctaatt 420

gcagcaacaa ctata 435

<210> 1002
 <211> 420
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-056-Q1-K1-A5

<400> 1002

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tcacaagctc ctatagcttc cctttctccc ccgtacctct caccaacggg gtcttcggta 180
tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcaac tggcatttta 240
cctttatcac ccttggttct tcaacaatca tcaagcctat tacagcagtt aactttgggtg 300
cattaattgc acaaaacatc anggcacaac aactacaaca acttggtgcta gcaaacccttg 360
ctgcctactc tcagcaacag cagttttcttc cattcaacca actagctgca ttgaactctg 420
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<210> 1003
 <211> 440
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-056-Q1-K1-A6

<400> 1003

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cagggcacaa caactacaac aacttggtgt agcaaaccctt gctgcctact ctcagcaaca 180
gcagtttctt ccattcaacc aactagggtc attgaactct gcttcttatt tgcaacaaca 240
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actagcagca ttgaactctc ctgcttattt acagcagcaa caactactac cattcagcca 360
gctagctggg gtgagccctg ctaccttctt gacacaacca cagttggttg cgttctacca 420
gcacgttgcg cctaacgctg 440
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<210> 1004
 <211> 415
 <212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-H12

<400> 1004

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 aagcctacag gctacaacaa gcgcttgagg cgagcgtctt acaacaacca attgcccaat 120
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 aatttctacc agcactgagc caactagctg tgggtgaacc tgtegcctac ttgcaacagc 240
 agttgcttgc atccaaccca cttgctctgg caaacatagt tgcataccaa caacaacaac 300
 aattgcaaca gtttctacca gcgctcagtc aactagccat ggtgaaccct gccgnctacc 360
 tacaacagca acaactgatt tcatctagcc ctctcgtgn ggtaaatgca cctac 415

<210> 1005
 <211> 310
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-055-Q1-K1-F9

<400> 1005

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 cccgcgcgtc gaccagtacg ggaaccccggt gccgcgggtg gaccagtacg gcaacccgct 180
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 cgccgcgggg cagtgggcgg cgcctgtcga gtacggtgcc gacgccaagt attcgcacga 300
 tggcacgggg 310

<210> 1006
 <211> 427
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-055-Q1-K1-G1

<400> 1006

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 gtggctgccg gacaccaccg ttctcatctac cgctccggtt ctatatgccg cctccgttct 180
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 gcccgtgccg gcagttcgga tcttgccggcg tgggcagcgt cggcagcccg ttcttggggc 300
 agtgcgctga gttcttgagg caccagtgcg gcccgggggc gacgcctac ggctcgccac 360
 agtgccaggc gctgcagcag cagtgcctgcc accagatcat gcaagtggag ccgctgcacc 420
 ggtacca 427

<210> 1007

<211> 303

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G10

<400> 1007

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 actacataaa acatgaacaa tatggagttt tatatactgg accccagtcc aggtttttaa 180
 tccacccttg caaggggtga gtttatgttt gtgtttggga gtgtatattt ctatattgca 240
 atttgaaaaa aaactatgta tgtaataaaa taagaatata tcaattcatt cacatgacaa 300
 ttg 303

<210> 1008

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G11

<400> 1008

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 ccttactgct cacaagctcc tatagcttcc cttcttcctc cataccttcc atcaattata 180
 gctccaatat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgagca 240

agcaacatac ctttatcggc cttgggtgggt caacaatcgc cagccctatc tttgggtgcag 300
 tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tgtgatcaac 360
 caagtagctc tggcaaacct tactccctac tctcagcaac aacaatttct tgcattcaac 420
 caactttcta cactgaa 437

<210> 1009

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G12

<400> 1009

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 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacagggaat cacagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca tcagttacct 300
 ttgggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
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<210> 1010

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G2

<400> 1010

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 tcaatgggct tcgaacacct agctgtgcaa gccaacatgc aacaacaagc gcttgccggc 180
 agcgtcttac aacaaccaat tgcccaattg caacaacaat ccttgccaca tctaacaata 240
 caagccatca caacgcaaca gcaacaacag ttctaccag cactgagcca cctagccatg 300

gtgaaccctg cgcctactt gcaagagcag ctgcttgcac ccaaccact tgctctggcg 360
aacgtagttg caaaccagca acaacaacag ctacaacagt ttctgccaac gctcagtaa 420
ctag 424

<210> 1011
<211> 237
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-055-Q1-K1-G3
<400> 1011

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cggatggaca agtatattta gagttcgatg tgggtgtaac ggatcgggtg tctgtcttag 180
atgatataaa atacattatt tttagtccaa tttaatcatt gtccaatttg cctaaaa 237

<210> 1012
<211> 426
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-055-Q1-K1-G4
<400> 1012

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cctgcttatg ctcttgggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc ccggtacctc tcaccaacgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt 240
acctttatca cccttgttcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
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tgcttc 426

<210> 1013
<211> 423

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-G5
 <400> 1013

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ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt acctttatca 180
cccttggtcc tccaacaacc gtcagcccta ttacagcagt tacctttggt gcatttggtg 240
gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct tgctgcctac 300
tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc tgctgcttat 360
ttgcaacaac aactaccatt cagtcagcta gctgctgcct acccncagca atttcttcca 420
ttc 423
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<210> 1014
 <211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-055-Q1-K1-G6
 <400> 1014

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tcaaccgccc cggcctcagc ctcaccccca gccacacca tgcccgtgcc aacagccgca 180
tccaagcccg tgccagctgc agggaaacctg cggcggttggc agcaccgccga tctggggcca 240
gtgcgtcgag tttctgaggc atcagtgcag cccgacggcg acgcctact gctcgcttca 300
gtgccagtcg ttgcggcagc agtggttcca gcagctcagg caggtggagc cgcagcaccg 360
gtaccaggcg atcttcggct tggctctcca gtccatctg cagcagcagc cgcaaagcgg 420
ccaggtcgcg gtgct 435
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<210> 1015
 <211> 396
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-G7

<400> 1015

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cttcgcgggc gtgctgttcc gccacctgtt ccggtccaag gcctccacgc cggcgccgcc 180

gaccaccca ggggacgcct cggccgcgcg gccctacatc ccggacttca agcgcgcgtt 240

cgagcacttc tgcattgcac cggccagccg cgacgtgctg gagcacctgc agagcaacct 300

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<211> 468

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G8

<400> 1016

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ctttcacaat atagcgtg cccaacgaa ggaaatgaag gatattgaga aagtggacat 180

tacaagcatg aagaaaaatc tctagatgaa tcagtgggat cactaaccat tggcattatt 240

gattctgagt tcatggattc aagtcgtcca attcatgata aagaatcatg ttctactggt 300

tctgcagctg accaatgttc aaggactata ccggctaaat atgaattaag ttcagaagag 360

tcagattcca caggcagtc tttggtgtt gacagtggca agaattatct ggagttgaac 420

aatcattctg tcacagattt ggaaaggatt tacgatggac atgccacg 468

<210> 1017

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-G9

<400> 1017

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcaatgtgtg aaaccccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttgggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
aactctgctg ctt 433

<210> 1018

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H1

<400> 1018

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attgaactct cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg 180
tgtgagccct gctaccttct tgacacaacc acagttgttg ccgttctacc agcacgttgc 240
gcctaacgct ggcaccctct tacaactgca acaattgctg ccattcaacc aacttgcttt 300
gacaaacca gcagtgttct accaacaacc catcattggg ggtgccctct tttagatttc 360
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<210> 1019

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H10

<400> 1019

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ctaccaggat atgatccctg cttgcgctgc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
ctgagagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
ccatggtgaa cctgcccgc tacttgcaac agcagctgct tgcacaaac ccacttgctc 420
tggcaaacgt agttgc 436

<210> 1020

<211> 346

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-H11

<400> 1020

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ctctcactat ataacatctc tattaccacc catctactca ccaccaacta cgtaatatat 180
tttacaacac aattcttcac cactacatca tccaccagga gataacatct agcttaatat 240
caccattacc attgttcac cccaatcaa catcaatact acaacagctt ccttcacttc 300
agcatattat cacttaacat cactgcacat catctacaac aactta 346

<210> 1021

<211> 265

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F8

<400> 1021

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ctagctagct aggcggtggt gtgatctatt cgtaattaa atgatgtttt tttttgctgt 120
tctcctgggg tggcctacat gccaatgcat gtgtgtgttt tcaggagacc agctgtggcg 180
tggcagtcag tacaatggcc gacctgccat gatgtaacat ctctctgtac aatgtacctt 240

ttcgtttgtt ggattttctc ctgct 265

<210> 1022

<211> 257

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E3

<400> 1022

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caagttcttc cattcaacca actgtctaca ctgaaccctg ctgcttattt gcagcaacaa 120

ctattaccat tcagccagct agctactgcc tactctcagc aacaacaact tcttccattt 180

aaccaattgg ccgcactgaa ccccgctgct tatttgcagc agcaaatact actaccattt 240

agccagctag ctgcagc 257

<210> 1023

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-E5

<400> 1023

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gtagtggcga ccgccgtggt ggccttggtg ctgctggcgg cggcggcgac ctccgaggcg 180

gccatcagct gcgggcaggt ggcgtcggcc atcgcgcctt gcattctcta cgcgcgcggc 240

cagggtctgg ggcctccgc cggctgctgc agcggcgtca ggagcctcaa caacgccgtc 300

cgcaccaccg ccgaccgccg cgccgcctgc aactgcctca agaacgccgc cgcgggcgtc 360

agcggcctca acgccggcaa cgccgncagc atccnctcca agtgcggcgt cagcatcccc 420

tacaccatca 430

<210> 1024

<211> 426

<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-E6

<400> 1024

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gccgtccgca agggcaacgc cgctgtcggc gtccgcggcg tcgacaccgt cgtcctcggc  180
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aaccgcgctc gcgtggagtg ccagagccac cgcctcacag tcgaggacct cgtcacccgc  360
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cgcccc                                           426
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<210> 1025
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E7

<400> 1025

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acagcaacag ctaccaccat tcagccagct agctgatgtg agccctgttg ctttcttgac  180
acaacaacag ttgttgccgt tctacctgca cgctgcgcct aacgctggca ccctcttaca  240
actgcaacaa ttgctgccat tcaaccaact tgctttgaca aaccaacag cgttctacca  300
acaaccatc attggtgggt ccctctttta gattgcttat gagttatact tcaataatga  360
agtttttttg atgatgtttg tggcttccca gacataagaa agtacatttc tag         413
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<210> 1026
 <211> 257
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E8

<400> 1026

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accccgcaac cctcttacaa ctacaacaat tgttgccctt tgtccaactt gctttgacaa 120
accagcagc ctctaccaa caacacatca ttggtggtgc cctcttttag attgattatt 180
agttgtaatt caataataaa gttttttgga tgatgtatgt ggccaaccag aaataagaag 240
ttacatttcc agatttct 257

<210> 1027

<211> 264

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E9

<400> 1027

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cgaccaagat attttccctc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
caattttccc tcaatgctca caagctocta tagcttccct tcttccccca taccttccat 180
caattatagc ttcaatatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240
tcgcaagcaa gcaacatacc tttta 264

<210> 1028

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F1

<400> 1028

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caacaacagt tgctgcaaca aattgtacca gctcttactc agctagctgt ggcaaaccct 120
gctgcctact tgcaacaact acttccattc aaccaactga ctgtgtcgaa ctctgctgcg 180
tacctacaac agcgacaaca gttacttaat ccactagcgg tggctaacct attggtgcgt 240
gccttcttac agcagcaaca attgctgcca tacaaccagt tctctttgat gaaccctgcc 300
ttgtcgtggc agcaacccat cgttggtggg gccatctttt agattacata tgagatgtac 360

tcgataatgg tgcctcdata gggcatgtg tttcctaaaa ataatcaata tattgattga 420
gatttatctc gatata 436

<210> 1029
<211> 340
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F10

<400> 1029

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gtcacaaca atacctctct ccagtgatag ccgcgagatt tgaataccca tctatacaat 180
cctacaggct acaagaggcc atcacagcaa gcattcttacg gtcgtagca ttgaccgtcc 240
aacaaccata tgcctatttg caacaacccat ccttagtgaa tctgtatctc caaagaatca 300
cagcacaaca actacaacaa cggttgcttc caacaattaa 340

<210> 1030
<211> 436
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F11

<400> 1030

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acagccagca gcaaaggaca tcagctccac cgctcgtcgc accaaggctc gagtgtgggg 180
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cgatcttggc gacgctgaat acgtcaagga agtttctgga acgtacggcg cattcgaagg 420
tgcgactacc cttacc 436

<210> 1031
 <211> 318
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-F2

<400> 1031

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 tagcttccct tcttccccg tacctctcac cagcgggtgc ttcgggtatgt gaaaacccaa 180
 ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct ttatcacctt 240
 tgttctcca acaatcatca gccctattac aacagttacc tttgggtgcat ttattggcac 300
 aaaacatcan ggcacaac 318

<210> 1032
 <211> 429
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-F3

<400> 1032

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 ccagctagct actgcctact ctcagcaaca acaacttctt ccatttaacc aattggccgc 180
 actgaacccc gctgcttatt tgcagcagca aatactacta ccatttagcc agctagctgc 240
 agcaaaccgt gcttccttct tgacacagca acagttgctg cttttctacc agcagtttgc 300
 ggctaacccc gcaaccctct tacaactaca acaattgttg ccctttgtcc aacttgcttt 360
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<210> 1033
 <211> 365
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F4

<400> 1033

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tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca aaccttgctg 180
catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg aactctgctg 240
cttatttgca acaacaatta ccattcagcc agctagttgc tgctacccc cagcaatttc 300
ttccattcaa ccaactagca gcattgaact cttgtgggta attacagcaa caacaactac 360
tacca 365

<210> 1034

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F5

<400> 1034

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accattcagc cagctatctg ctgcctaccc ccagcaattt cttccattca accaactgac 240
agcattgaac tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc 300
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<210> 1035

<211> 423

<212> DNA

<213> Zea mays

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<400> 1035

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ccgacaatat attgcaaggt gtatctagta gttggaggag atatgcagtt tgcacttgca 120

ttggacacga actcaggtcc tcaccagata agatcttgtg agggatgatgg gattgacagg 180
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 atcatttttg gcggaagcac tggatctcag ctctttctc tgacaagcac aagagctacg 420
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<210> 1036

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-F7

<400> 1036

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 atgcgtccat tattccacaa tgctcacttg ctcttagttc cattattcca cagttcctcc 180
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 cgattgcggc gagcgtctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac 300
 atctaacaat acaaaccatc gcaacgcaac agcaacaaca gttcctacca gcaactgagcc 360
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<210> 1037

<211> 393

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-C9

<400> 1037

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 cccagatcta tcgcgttcct gttctgcttt gtggaatcgg atactctgtc tgetggcctc 180
 tgctgacgat taatctggtt cggatttggg tctgggccag gagacgcagc ggctcctcag 240

cgaaccaggt gctgactag tttcccgga gctctctcg aattttggtg caattcggag 300
 tgtgctgcta ctacaccggt ctgggttctc tagcatgtta tttgattccg cttttcttct 360
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<210> 1038

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-D1

<400> 1038

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 cgggcaagat attttccatc cttatgctcc ttgctctttc tgcattgtgt gctaacgcga 120
 ccatttttcc tcaataactca caagctccta tagctgccct tcttccccca taccttccat 180
 caatgaccgc tttagtatgt gaaaaccag cccttcaacc ctacaggatc cagcaagcaa 240
 tcgcaacaag caacttacct ttatcacacc tgttctttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cagaacagtt gcagcaactc gtgctaccag 360
 tgatcagcca agtagctctg gcaaaccctt cccctactc tcagcaacaa caatttcttc 420
 cattcaacca actgtc 436

<210> 1039

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-D10

<400> 1039

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 gccactcaa gggattatg ggctacgtgg aggaggatct ggtttccacc gacttcaccg 120
 gtgacagcag gtcgagcatc ttgcagcca aggccgggat tgccctgaac gaccacttca 180
 tcaagctcgt ctcttggtac gacaacgagt ggggctacag caaccgcgtc gtcgacctga 240
 tccgccacat gttcaagacc cagtagagag agatatttct gcctccctat cgtgggtcgt 300
 ccccaatggc ctttggtcgc agaccatctt tgctgcttgt ctatgctgag aataaatgtg 360

aacggtgccc ctggacgctg gatccatgct ggttttggac acggtgtctt tttgtgttta 420
acttatct 428

<210> 1040
<211> 337
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-D11

<400> 1040

gtgacaggag atgaaacatt gcgggggctc tcaataaaaag cagctcaaag ggcacttgga 60
atggccaaaag taaaagctga agatgttgac cttgttctcc tttgtacatc tactccagat 120
gatttgtttg gaggtgccac tcaggtgctg acggacgtgg ggtgcacaaa ggcttttgga 180
tttgatatta cagctgcttg cagtgggttt atagtgggt taatcacagc tactcgtttt 240
attcaaaggt ggaggttttc agaatacct agtagttggt gctgatgctc tttcaaaata 300
tgtggattgg acagacagag gtacatgcct tcctttt 337

<210> 1041
<211> 424
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-055-Q1-K1-D12

<400> 1041

cgtcagcagc ttctgcttgc tctgggggga aggagagaga gagagcgaga gagagagaga 60
gatctagtag agaggctagt aggtggctct cgaacgaaga tgttggcggt gttcagcggg 120
caggtggtgg aggtgccggc ggagctggtg gcggcgggca gccggacgcc gtcgccaag 180
acgaaggcgt cgcagctcgt ggggcgcttc ctggccgct cagagccggc cgtgtccgtg 240
cagctcggcg accacggcca cctcgcttac ttccacacca accaggcgt cctccgnccc 300
aggtcgttcg cggccaaaga cgaagtgttc tgctgttcg aaggggtgct ggacaacctg 360
ggtcggctga gccagcagca cgggctgtca agcaagggcg ccaacgaggt gtcctcgtc 420
atcg 424

<210> 1042
 <211> 385
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-D4

<400> 1042

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 ccgtgttgac accgcgcgtn ctcaaggctt cgctgctcgg ctgcttgccg gctaccgcgg 120
 agctgcctcc gttgcggcga ccccgatcc tacctgtgcg ggtttaccat tccagaggct 180
 attctagtgg gggaagctcc aagtatgata ggccaatgag acagttttcc gaacagaatg 240
 agtcaacctc tcagccatta atatattaca ttgtccatc tgctctgctt gcttttgctg 300
 ggatagccac atttggtcat tacaatgatg agaggcgtgc aattcccttt cgctaaagta 360
 ccaggacaga ccaatgttcc caaaa 385

<210> 1043
 <211> 356
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-D6

<400> 1043

 aggagtctctg cctgttcgag ggggtgctgg acaacctgag tcgtctgagc cagccagggg 60
 gtctgtcaag caaggctgcc aactaggtgc tcctcgatc cgaggcctac aagacgctgc 120
 gcgaccgcgc gccctacccg gccagctaca tgctcgccca gtcaccggc tcctacgcct 180
 tcgtctcttt cgacaagtcc accatctcac tgctcgctgc atccgacccc gatggcaggg 240
 tgccgctctt ctgacggatc accgcccagc gctgcgtagc cttctacgac gacatcgaca 300
 tgctcaaagg ctcatgcagg atgtcgctcg agccgatccc gcaaggctgc ttctac 356

<210> 1044
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-D7

<400> 1044

agcaagcaac atagaaagta gaatccatta gcaacaatag agcaacaatg gggaccggga 60
tattttccct ccttatgctc cttgctcttt ctacatgtgt tgctaacgcg acaattttcc 120
ctcaatgctc acaagctcct atagcttccc ttcttcccc atacctcca tcaattatag 180
cttcagtatg tgaaaaccca gctcttcaac catataggct tcaacaagca atcgagcaa 240
gcaacatacc tttatcgccc ttgttggttc aacaatcacc agccctatct ttggtgcagt 300
cattggtaca aaccatcagg gcacaacagc tgcagcaact cgtgctacct gtgatcaacc 360
aagtagctct ggcaaacctt tctccctact ctgagcaaca acaatttctt ccattcaacc 420
aactgtctac actg 434

<210> 1045

<211> 431

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-D8

<400> 1045

cgccggctgt tgatcccacc aatagagccg tgtactataa tgatagatct cgggcgggtg 60
aattgaagcg agacatgccg gtgggaactg aagctgccag ctaccgcta cccgtttcag 120
ctccggacgc tgctgcggca gctgcagcca ccgccgcgac acaggcccct cctggatatg 180
ttcttgccca gatgcatgcg ccttcgccac cgcagcagcc tccaccacag cagcaaccac 240
aacagccagc tcctcagcag attgttgctg ctgggaatca acatttcac cacaaccctg 300
ccactggcac ctttattcca atccaatcct attaccacca tcctgtccat cagcaggcac 360
cccagaccat gcaaaggcag caacaagcac ctacgttoga cccaaataca gggatgtatt 420
atngtccat g 431

<210> 1046

<211> 318

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-D9

<400> 1046

caacaaccta acaacaatgg ctaccaagat attatccctc cttgcgcttc ttgcgctggt 60
tgcgagcgca acaaatgcgt tcattattcc acaatgctca cttgctccaa gttccattat 120
tacacagttc ctcccaccag ttacttcaat gggcttcgaa caccagctg tgcaagccta 180
taggctacaa caagcaattg cggcgagcgt tttacaacaa ccaatttccc agttgcaaca 240
acaatccttg gcacatctaa caatacaaac catcgcaacg caacagcaac aacaattcct 300
accagcactt gaccacct 318

<210> 1047

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E1

<400> 1047

gggtcttcag accattagct ttatctactc cagagcgagc aagaacccga tcgacaccat 60
gaggggtggtg ctggttgccc tcgctctcct ggctctcgct gcgagcgcca cctccacgca 120
tacaagcggc ggctgcgggt gccagccacc gccgcgggtt catctaccgc cgccggtgca 180
tctgccacct ccggttcacc tgccacctcc ggtgcatctc ccaccgcggg tccacctgcc 240
gccgcgggtc cacctgccac cgccggtcca tgtgcgcgcg ccggttcctc tgccgcgcgc 300
accatgccac taccctactc aaccgccccg gcctcagcct catccccagc cacacccatg 360
cccgtgccaa cagccgcctc caagcccgtg ccagctgcag ggaacctgcg gcgttggcag 420
cacccccg 428

<210> 1048

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E10

<400> 1048

cccacgcgtc cgcaacaagc tgccccgcag caacgaacac gaaccttggc agaacggagc 60
tgaagtagtt cgttgtgaac ccagtatggc aaacgcgcgc aggatcctgg cctcggcct 120

gctgctagcg ctctgtgctg ctgccgccgg cccggccgcc gcgcagaact gcggctgcc 180
gcctaacttc tgctgcagca agttcggcta ctgcggcacg accgacgact actgcggcga 240
cgggtgccag tcgggcccgt gccgctcggg cggcggcggc ggccggcggc gaggcggaag 300
cagtggcggg gcgaacgtgg ctaacgtggg cagcgacgcg ttcttcaacg gcatcaagaa 360
ccaggccggg agcgggtgcg agggcaagaa cttctacacc cggagcgcgt tcctgagcgc 420
cgtcaacaag ta 432

<210> 1049

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-E12

<400> 1049

agtccctgca cccggtgaat cttccggtga atatgcggtc tgtgacttat tcgcagagcc 60
aaaattacca acaagatgat ttccataaaa ctggtgcacg ggaccttgag ccaaggatca 120
acaccgatga gcatggatgt tcatccactt caacaaactc ttcttcttga caatggccac 180
ttctccccc aa gcgaaaaaaaa tctgctagaa aaccttaaag ggctttaaca ttgggatgga 240
tatttggggc cttaccttgc tttaaagtga gattcagttt tctgttttca cttaatatga 300
caactgaaga gcgaaagact ttgaagggca cagagtcctc agctccttct gttcctcctg 360
atggaggagt cagcaaggaa cctaaaaaag ggggagatta cccaatggga ggacaactgg 420
tccagcacgc 430

<210> 1050

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C8

<400> 1050

cggacgcgtg ggtcaatgtg tgaaaaccca attgttcaac cctacaggat ccaacaggca 60
atcgcaacag gcatcttacc attatcacc ttgttctctc aacaaccgtc agccctatta 120
cagcagttac ctttgggtcca tttgggtggc caaaacatca gggcacaaca actacaacaa 180

cttgtgctag caaaccttgc tgcatactct cagcaacatc agtttcttcc attcaaccaa 240
ctggctgcat tgaactctgc tgcttatttg caacaacaat taccattcag ccagctagtt 300
gctgcctacc ccagcaatt tcttccattc aaccaactag cagcattgaa ctctgctgct 360
tatttacagc agcaacaact actaccattc agccagctag ctgatgtgag ccctgctgcc 420
ttcttgacac aacaa 435

<210> 1051
<211> 279
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-055-Q1-K1-B4
<400> 1051

acgacataga tagcgcacta ttgtaccatt aattgccagc caaatggttt tcgctaagga 60
taggcatgct tctctctggg ggtgactata cggcgagcat attacgtaaa tgctcacaag 120
ctactacagc ttcccttatt agctcataat tctcaccatc gatgtcttca gtatgtgaaa 180
atccaatgct tctaccctac aggatccaac atgcaatcac agcatgcac ttacctttat 240
cacgcttggt cctccaacag tcatggatcc tattacagc 279

<210> 1052
<211> 363
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-055-Q1-K1-B5
<400> 1052

gccacgcgtc cggggacata caacgcacac tatttcagtt ataataacag ccaaataaac 60
acgggtaaag atgctttttg agctctctct gtgtcgctgt ttcagcaagc atattaccgt 120
aatgctcaca agctgctatt gatgttctaa gaaaccata cctgttactt tcgatgtatc 180
aactatgtga aaatcaactg tttatactca tacatcatcc atatggcaaa cctagcgtgc 240
atattacggt tatcatcctt gtacctcca caatcattat gcctactaca gcacatacct 300
atgcatcatt aattgacaca aataatcagg gtacatcaac tacgacaact tgagctagca 360
aac 363

<210> 1053
 <211> 314
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-B7

 <400> 1053

 gaggcgctga cttatcctac cactcttate aagtcctgat cgagttaggg gggcttgagg 60
 tattgctaag gtgcgatggc agctgctgat gtcgagtacc tttgcttcgt acgcggacat 120
 gcctgggcca ccagcaacga gtcgctgcag aatgccttcg cctcctacgg ctagatcctc 180
 gactacaaga tcatcaccga ccgtaacact gcgaggttcc gcggtttagt atgcgttacc 240
 ttctcctacg agaactccat gtcgacgct atcgagaaca tgaacagcaa tgagctctac 300
 gcacgtatca ttac 314

<210> 1054
 <211> 341
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-B8

 <400> 1054

 gcattcagaa acacaccaag cgaagcgcac tagcaacgac ctaacaacaa tggctagcga 60
 gatattagcc ctctttgcgc ttcttgccct ttttgtgagc gcaacaaatg cgttcattat 120
 tccacaatgc tcaattgctc ctagtgccat tattccacag ttctctccac cagttacttc 180
 aatgggcttc gaacacctag ctgtgcaagc caacatgcaa caacaagcgc ttgcggcgag 240
 cgtcttataa caaccaattg cccaattgca acaacaatcc ttgccacatc taacaatata 300
 agccatcaca acgcaacagc aacaacaagt tctaccagca c 341

<210> 1055
 <211> 463
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-055-Q1-K1-B9

 <400> 1055

accgatccgc aattccagcc acgcctacgc agaaagcaca atagtgtacc aacaatggca 60
gctaaaatat tctgctcct tatgcgggtt ggtctttctg caàgtgctgc tacggcgacc 120
atccccccgc aatgctcgca agctcctata gcttcccttc ttcccccgta cctctcacca 180
gcggtgtctt cgggtatgtga aaacccaatt cttcaaccct acaagatcca acaagcaatt 240
cacagctggc atcttacctt tatcaccctt gatccttcaa caatcatcag ccctattaca 300
tcagttacct ttggtgcatt tattggccca aaacatcaag gcacaacaac tacaacaact 360
tgtgctagca aaccttgctg gctactttca gcaacagcag tttcttccat tcaaccaact 420
agctgcattg aactcttgct ctaatttgca acaacaacaa cta 463

<210> 1056

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C1

<400> 1056

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agtgttgcca gcagctcagg caggtggagc cgcagcaccg gtaccaggcg atcttcggct 120
tggtcctcca gtccatcctg cagcagcagc cgcaaagcgg ccaggtcgcg gggctgttgg 180
cggcgagat agcgcagcaa ctgacggcga tgtgcggcct gcagcagccg actccatgcc 240
cctacgctgc tgccggcggt gtccccact gaagaaacta tgtgctgtag tatagccgct 300
ggctagctag ctagttgagt catttagcgg cgatgattga gtaataatgt gtcacgcac 360
accatgggtg gcagtgtcag tgtgagcaat gacctgaatg aacaattgaa atgaaaaga 419

<210> 1057

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C10

<400> 1057

cccacggctc cggcaacata gaaagcacia tagtgtacca acaatggcag ccaaaatgtt 60
ttgcctcctt atgctccttg gtctttctgc aagtgtgct acggcgacca ttttcccaca 120

atgctcacaa gtcctatag cttcccttct tccccgtac ctctcaccag cgggtgtcttc 180
 ggtatgtgaa aacccaattc ttcaacccta taggatccaa caggcaatcg cagctggcat 240
 cttaccttta tcacccttgt tctccaaca atcatcagcc ctattacagc agttaccttt 300
 ggtgcattta ttggcacaaa acatcagggc acaacaacta caacaacttg tgctagcaaa 360
 ccttgctgcc tactctcagc aacaacagtt tcttccattc aaccaactag ctgcattgaa 420
 ctctgcttct ta 432

<210> 1058

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C11

<400> 1058

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 attcgaccgg gtcggtagcc aggagaggc agcggaagga gaggatgagc ttccaggacc 180
 tggaggcggg gcacgtacgg ggggcgcgcg tggcgggcgg ccggagggaac ggcagggggc 240
 ccgcgggggc ggggggcgcc ggcgccggcg cgtcgcaagc cgtggcgctca ggcgtctttc 300
 agatcaacac cgcggttgcc acgttccagc gcctcgtaa cacgctcggc acgccaag 360
 atacccccga ctttcgagc aggatacata aaacacggct acacataaca caac 414

<210> 1059

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C12

<400> 1059

attattgaga ccaactagca acatacaaag cacaatagtg taccaacaat ggcgcgaaa 60
 atattctgcc tccttatgct ccttggtctt tctgcaagtg ctgctacggc gaccattttc 120
 ccgcaatgct cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcggtg 180
 tctacgggat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct 240

ggcatcttac ctttatcacc cttgttcctc caacaatcat cagccctatt acatcagtta 300
 cctttgggtgc atttattggc acataacatc aaggcacaac cactacaaca accttggtga 360
 acaaaccttg cttgtactc tcagcaacag cagtttcttc cattcaacca actagctgca 420
 ttgaactctg 430

<210> 1060

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-C2

<400> 1060

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 gggcggaac gaatgcggga cgagagcgac caccacgccg gcgtctgcgc agcggagggtg 120
 aaagccgagc cgggtggacgc gcgtcccgac cagcagcggc agcgcaacgc cacggagccg 180
 cagtcgtggc ccattttaccg gccagggcct gtgtaccacc cgctccgggc ctgcaacggc 240
 tcgggcagcg ctgggagcga ccacgacggg tccaacgact cgaggtgacg ggagcaatcg 300
 tcgatctgcc ctcagtaaatt tagtattaca cttactaatg gtactaggta actatattac 360
 aggttaaact aggatgtgag ctctaaatct ctaattatgt ggngatttac tgaccgatcc 420
 tatgtaaaaa tctccagtgt tt 442

<210> 1061

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C3

<400> 1061

gtcgatcgcg tcgcgaccag tccatgtttc catgcatgaa taacaagggt gtgctcggtc 60
 tgggataaac aaatgtatga tcagagcgtc cacaaccctt ccatctgcgc actagtagtg 120
 aaagtctaac cattgtactc ccgttctaac tacaatctgg catctgcata catcatttca 180
 gccattatac tatagacaca ttgtatcacg tccaagacct acatactact ctctcagaaa 240
 tttcaacgat ttggtcattg ctgagagcga ccacgacaga tccaacgact agatgtgact 300

gcacatcatcg tcgatctgac ctacagtaaat tagtattaca cttactaatg gtactaagta 360
actatattac acgttatact atgatgtgag ctctaaatct ctaattatgt gaaaatttac 420
tgaccgatcc tata 434

<210> 1062
<211> 319
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C4

<400> 1062

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tgctgctgat ttcaaactgt gcagacattt gttggaactg cctactggat ggtacctgag 120
gttattcaaa attctgaagg gtacaatgag aaggcagata tctggtcttt aggtatcact 180
gccattgaaa tggctaaagg tgaacccctt gtggcagata ttcataccat gagagttctt 240
ttcatcatc ctagtgaaaa tactgcacag ctcgatgagc atttggtgaa accaatgcat 300
gagtgtgtct cactatggt 319

<210> 1063
<211> 403
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C5

<400> 1063

gcaacataga aagtggaatc cagtagcaac aacagagcaa caatggcgac caagatgggt 60
tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctccatagc ttcccttctt ccccatacc ttccatcaat gatagcttca 180
gtatgtgaaa acccagctct tcagccctat aggcctcaac aagcaatcgc agcaagcaac 240
atacctttat cacccttggt gtttcaacaa tcgccagccc tatctttggg gcagtcattg 300
gtacaaacca tcaaggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttc 403

<210> 1064
 <211> 400
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-055-Q1-K1-C6

<400> 1064

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 ccaagatatt ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca 120
 tttttcctca atactcacia gctcctatag ctgccccttct tccccatac cttccatcaa 180
 tgaccgcttt agtatgtgaa aacccagccc ttcaacccta caggatccag caagcaatcg 240
 caacaagcaa cttaccttta tcacacctgt tctttcaaca atcgccagcc ctatctntgg 300
 tgcagtcatt ggtacaaacc atcaaggcag aacagttgca gcaactcgtg ctaccagtga 360
 tcagccaagt agctctggca aacctttccc cctactctca 400

<210> 1065
 <211> 389
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-C7

<400> 1065

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 gttagctggg gattcatgga ataagggtcaa gagcgacaaa tgaaaggacc acagcaatgc 120
 caatgacatt accaataaat ccaaaatacc ggttccttct attgtagacc cacagactaa 180
 gcaacaggat cacaattccg attcagattc tgaggaagag atgggttgaag gcaacttgac 240
 catccctgac agaaaggaga gctatgaact tccatcgcaa gctgatctca tacgtcaggg 300
 ttttgctggg gatgatgttg aagctgaatt tgcgaaagac aaaatggatg ctataaatga 360
 tgagaatcct gaacctgaaa agcctgctc 389

<210> 1066
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-B3

<400> 1066

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aagcaggcgg ccccgcggc acaggagacg gccgtgcaca tcgtgtacgt tgaccgcccc 120
gaggacgccc accctgagga gttccacatc cgcacctca ccccgtcct cggcagcgaa 180
cagaaggcca gggacgcagt gctctaccac tacaagaacg ccgccagcgg cttctccgcg 240
aagctcacc cccagcaggt caaggatctc aaggagcaac caggtgttct ccaggttgtg 300
ccgagccaga cttaccagct acatggccct gggctctggca ctcaccaggg cacgacacac 360
accttggggc ttatgtgaag gcgtatgaga atcaagaaga ctttgtttag tatggctgta 420
tggcacaggt ctg 433

<210> 1067

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-A10

<400> 1067

acagccgcag aatctcaata cccagctata caatcctaca tggtagagga ggccatcgaa 60
gcaagcatct tacggacatt agcattaacc ctccatcaac catatgctct attgcaacag 120
ccatccttag tgcatatgta tctccaaaga atcgcggcac aacaactaca acaacagttg 180
ctaccaacaa tcaaccaagt atttgcagcg aaccttgctg cttacctaca gcaacaacag 240
tttcttccat tcaatcaact agctgggtgcg aaccctgcta tctacttgca ggcacaacag 300
ctactaccat ttaaccaact tgtcgggagc ccttatgcct tcttactgca acaacagctt 360
atggcattcc atctccaagc tgtggcaaac attgacgctt tcttgagaca acaaca 416

<210> 1068

<211> 473

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-A11

<400> 1068

taccgatctc ggaattccga ggctacgacg tacgcacata agtgacgcgc agtgtcgaac 60
gaactggaaa ctatggacta ccttgacaac ttagaggcgg aggaacgttt cacagagcaa 120
ggcgatgcta ttgtttttga atcagaagtt gacaaagttt accttgctgc accctccaaa 180
attgctatca ttgatcatga gaagaaaaga acatttgctg tgacaaaaga agggctttct 240
gatgctgatg tttggaaccc ttgggacaag aaggcaaaag caatgcaaga ttttggggat 300
gcagaataca agagcatgct gtgtgtggag cctgcactctg ttgagaggcc tattactctg 360
aaacctggtg aagagtggaa aggaaggctt gtgctctcag ctgttcctc gagttactgt 420
agtggacagt tagatccatt gaaggtcctt cacggctgaa aatccttact ttc 473

<210> 1069

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-A3

<400> 1069

agccacgcgt cacgccgtcc ttgacctccg ccgccgaatc ctagactctg atctcggggtt 60
caccgcagcg cgcanagcga ccccccagctc ccgtgccgat ccgcgctctc ctctacgacg 120
cttcagtcac ggcaggaatg gcacccgagg gttctcagtt tgatgctaag cactatgatt 180
ctaaaatgca ggagctgctg agcactgggtg agactgagga gttcttcact tcatatgatg 240
aagtttttga aagcttcgat gacatgggccc ttcaagagaa tctcttgaga ggcatttatg 300
catatggctt tgagaaacca tctgcaattc agcagagagg aattgttccc ttctgcaagg 360
cgctagatgt cattcagcat gcacaatctg gtacaggaaa gacagcaacc ttctgttctg 420
ggatcttgc 473

<210> 1070

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-A4

<400> 1070

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ttgctcgttg cctcgcctct cctggtctct gctgcgagcg ccacctccac gcatacaagc 120
 ggcggtcgcg gctgccagcc accgcgcgcg gttcatctac cgccgccggt gcatctgcca 180
 cctccgggttc acctgccacc tccggtgcat ctcccaccgc cgggccacct gccgcgcgcg 240
 gtccacctgc caccgccggt ccatgtgccg ccgcccgttc atctgccgcc gccaccatgc 300
 cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgtgc 360
 caacagccgc atccaagccc gtgccagctg cagggaacct gcggcgttg cagcaccgcc 420

<210> 1071

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-A5

<400> 1071

aacangcaac atagaaagtg gaatccagta gcaacaatag agcaacgatg gcgaccaaga 60
 tactttccct ccttatgctc cttgctcttt ctgcatgtgt tgctaacgcg acaattttcc 120
 ctcaatgctc acaagctcct atagcttccc ttcttcccc atacctcca tcaatgatag 180
 cttcagtatg tgaaaaccca gctcttcaac cctataggct ccaacaagca atcgcagcaa 240
 gcaacatacc tttatcacc ttgtttcaac aatcgccagc cctatctttg gtgcagtcac 300
 tgggtacaaac catcaaggca cagcagctgc agcaactcgt gctacctgtg atcaaccaag 360
 tagctctggc aaacctttct cctactatc agcaacaaca atttcttctt ttcaaccaac 420
 tatctacac 429

<210> 1072

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-A7

<400> 1072

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 gctcgcaggc tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 120

tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 180
 tacctttatc acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg 240
 tgcattttatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 300
 ttgctgccta ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact 360
 ctgctttctta tttgcaacaa caacaactac cattcagcca gctacctgct gcctaccccc 420
 agcaatttct tccattc 437

<210> 1073

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-A8

<400> 1073

cgctgcttat ttgcagcaac aactattacc aattaacccg gttggttccg gctaattctc 60
 agcaccaacg gcttggtcca tttaaccaat gggccgaact gaaccccgct gctaattggc 120
 agcagcaaact actactacca ttaagccagt tagctgcagc aaaccgcgct tccttctgga 180
 cacagcaaca gttgctgcct ttataccagc agtttgcggt taaccccgaa accctcttac 240
 aactacaaca attgttgccc ttgtgccaac ttgctttgac agaccagcg gtcttatacc 300
 aacaacacat catgggtggt gccctcttta agattgctta ttagttgaaa ttcaataata 360
 aagttttttg gatgatgtat gtggccaacc agaattaaga agttacattt ccagattct 419

<210> 1074

<211> 390

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-A9

<400> 1074

aattattcag ttcttgcaag aatgacatga ttttggtact aaatagtgtt ccttttatgc 60
 anaaatgacc aagacaatgc aagtgttaa tgaagcaagc tggcatgaaa catttaaagc 120
 tctttggatt tccacccttc gtcttgtaga acgggctaga gaacctcttg aaggaccgat 180
 tcctcatcta gatgcaaggt tatgcatgtt gttagctctt ataccattat caattgctgc 240

gaatcttcaa gaggaaagtg atatgtttgg agttgaaggg aacaaaattc ttnacacaaat 300
gacagggcctt atatcatctc tccagaatct gatccaatat tcaggacttc ttgtaccacc 360
ttcatcagtg gtgaatgcag ctaatgttgc 390

<210> 1075

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-B1

<400> 1075

caacaagcaa catagaaagt ggaatccagt agcaacaaca gagcaacaat ggcgaccgag 60
atagtttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta cactg 435

<210> 1076

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-B10

<400> 1076

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atggttgcgc tcagaaatgc atatcatggc ggaagtgccg gtacgattgg attgactggt 120
ttgcagacgt ggaaataccc aattcctcag ggtgaaatc atcatgtcat gaaccctgat 180
ccttatcggg ggactttcgg gtctgatgct gcagcttatg ctaaggaagt cgaagaacac 240
ataacttatg gaagttcagg aagggttgca ggcttcattg cagaaacatt ccaaggtgtg 300
ggaggtgctg ttgaactagc tctgggatac ctaaagttag cttatgacat tgtgcgcaag 360

gctgggtggc gttgtattgc tgatgaagtc caaagtgggt ttggccgtac tggcagtcac 420
tactgg 426

<210> 1077

<211> 423

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-055-Q1-K1-B11

<400> 1077

agtgtaccaa caatggcagc caaaatatatt tgcttcctta agtccttgg tctttctgca 60
agtgttgcta ccggaaccat tttcccacaa tgctcacaag ctctataag cttccttctt 120
ccccatacc tctcaccagc ggtgtcttca atgtgggaaa cccaattgt tcaaccctac 180
angatccaac aggcaatcgc aacaggcatc ttaccattat cacccttgtt ccttcaacaa 240
ccgtcagccc tattacagca gttacctttg gtccatttgg tggcacanaa catcagggca 300
caacaactac aacaacttgt gctagcaaac cttgctgcat actctcagca acatcagttt 360
cttccattca accaactggc tgcattgaac tctgctgctt atttgcaaca acaattacca 420
ttc 423

<210> 1078

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-055-Q1-K1-B12

<400> 1078

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ctctcttgat ctacgccatg gcggagggtg agcagcaaca ggacacgccg aagctcttca 120
accgctggac cttcgatgat gtccagggtga acgacatctc gctgaacgac tacctcgctg 180
tgaacgcgac gaagcacgcg atgtacctgc cgcacaccgc ggggcgctac tccaagaagc 240
ggttccgcaa ggcgcagtgc ccgatcggtg agcgccttac aaactccctc atgatgcacg 300
ggcgcaacaa cggccagaag ggtcatggct ggcccgatca tcaagcatac cctggagatc 360

attcacctgc tcaccgatgc caacccccatc caggctcgtcg tcgacgcgat catcaacagt 420
ggcccccgatg aggatgc 437

<210> 1079
<211> 416
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-055-Q1-K1-B2

<400> 1079

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ctgcgtctca tgatctctgc gcctctgcgg ctgctggcgc cgaggggctgc cgtcggggga 120
tcgttctctgc tcggcaagtc caagtccaag cccagcagga tccgctgcgc cgcgggggtg 180
gggagggggcg ccgncgccgn cacactgtac gagatcctgg gcctgcgcgc cggcgcgacg 240
ggccggggaga tcaaggccgc gtaccggcgc ctggcgcggg agcggcaccc ggacgtggcg 300
cccgcgcccc gggcgcgtgc cgagttctgc cgtttgcacg acgcctacgc cacgtctctc 360
gacccggaca gccgcgcgcg ctacgaccgc agcgcggtaa ccgcgggtggc cgtggc 416

<210> 1080
<211> 436
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-055-Q1-K1-A1

<400> 1080

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ctcgtcgtgt gcctggctct gtcagctgcc agcgcctctg caatgcagat gccctgcccc 120
tgcgcggggc tgcagggcct gtacggcgct ggcgccggcc tgacgacgat gatgggcgcc 180
ggcggggctgt acccctacgc ggagtacctg aggcagccgc agtgcagccc gctggcgggc 240
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tgctgccagc agcagatgag gatgatggac gtgcagtcgc tcgcgcagca gctgcagatg 360
atgatgcagc tngagcgtgc cgctgccgcc agcagcagcc tgtacgagcc agctctgatg 420

<210> 1081

<211> 339

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-G6

<400> 1081

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 ggctctcctg gctctcgtg cgagcgccac ctccacgcat acaagcggcg gctgcggctg 120
 ccagccaccg ccgcccgttc atctaccgcc gccgggtgcat ctgccacctc cggttcacct 180
 gccacctccg gtgcatctcc caccgcccgt ccacctgccg ccgcccgtcc acctgccacc 240
 gncgggtccat gtgccgcccg cggttcatct gccgncgnca ccatgccact accctactca 300
 accgcgcccg gctcagactc ataccagac acacccatg 339

<210> 1082

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-G8

<400> 1082

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 tgetgatcgt tgcccttgct ctccctggcg tcgetgcgag cgccgcctcc agtacaagcg 120
 ggggtgtggt ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 180
 cgttctatct gccgccgcag cagcagccgc agccatggca atacccact caaccaccgc 240
 agctaagccc gtgccagcag ttcggatcct ggggcgtcgg cagcgtcggc agcccgttcc 300
 tgggcccagt cgtcgagttc ctgaggcacc agtgcagccc ggcggcgacg ccctacggct 360
 cgccacagt ccaggcgctg cagcagcagt gctgccacca gatcaggcag gtggagccgc 420
 tgcaccgg 428

<210> 1083

<211> 359

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-054-Q1-K1-G9
 <400> 1083
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 gaaggaagaa gaggaagagg actggctcct ggaggaagaa gccggccggg gcttggatgg 180
 tcgcggagcg ctcccgtagg tgggtgccat gggaaggctg ttcagggact cgctcaaggt 240
 gctcgaagcc gacatccagc acgccaactc cattgcttct gaatttcgga aggaatatga 300
 tggcgcccttc cttcaaatga agatggcata ttgccttgc gccactttt tcctttttc 359

<210> 1084
 <211> 433
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-054-Q1-K1-H1
 <400> 1084
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 tatgctgctt ggtctttctg caagtgtgc tacggcgacc attttccgc aatgctcgca 120
 agctcctata gcttcccttc tcccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaacccaatt cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt 240
 atcacccttg ttctccaac aatcatcagc cctattacat cagttacctt tggatcatct 300
 attggcacia aacatcaagg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
 ctactctcag caacagcagt ttcttcatt caaccaacta gctgcataga actctgcttc 420
 ttatttgcaa caa 433

<210> 1085
 <211> 432
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-054-Q1-K1-H10
 <400> 1085

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 ttctccctcc ttatgctcct tgctctttct acatgtgatg ctaacgcgac aattttccct 120
 caatgctcac aagctcctat agcttccctt cttgccccat accttccatc aattatagct 180
 tcaatatgtg aaaaccacgc tcttcaacca tatatgcttc aacaagcaat cgcagcaagc 240
 aacatacctg tatcgccctt gttgcttcaa caatcgccag ccctatcttt ggtgcagtca 300
 ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctct gatcaaccaa 360
 gtaactcttg caaacctttc ctctactctc cagcaacaac aatttctttc attcaaccaa 420
 ctgtctacac tg 432

<210> 1086

<211> 231

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-H11

<400> 1086

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 agctaacagc cgtcatgata gacttacttt gaaatgggca tcgcatgtat atcccgagga 120
 cgtgacgcat gtctatcctt atccagctgg tgaagatccc aatggctatg agcttgcaag 180
 cgaacgatgg acaccactgc acacgagcga aagtatagct ctgagcatca t 231

<210> 1087

<211> 410

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-H12

<400> 1087

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 tcagagatca tatactgtag agtcccggag tgctacatct ttccggcacg acaagctccc 120
 acaggccaag gccacctcag cgactgtctc cctgaccatc gtggacctgt acctcaggcg 180
 cgaccaggtg ccgcacgcca tactcgaggc cagcaaggag atcggcttat ttcaggtggc 240

gaaccacggc gtctccctag aggcgatgca tgacatggag accgtgtgcc aggagctctt 300
 ccggctgccg gcggatgaca aagccgggct gtactcggag gacacgggga gggcgacccc 360
 gatctactcc aacaccatgt tcgacacggn cggcccagaa gtactggcgc 410

<210> 1088

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations .

<223> Clone ID: LIB3061-054-Q1-K1-H2

<400> 1088

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 cgccgaggag cccgaggacc acgacatgcc gcagctggtg gaggcggacg tggagaaggc 120
 gctctgggcc cagatcggca tcttgcattg cggcggcggc ctgttcgggg acagcaggta 180
 cggggcgccag gaggaacttg acgaggaaga ggtcaaggag atcgacagcg cccgcgcgcg 240
 gcgccggaag gcggcctacg agatggccat cgctcaggc ggccgacgct cgctcatcct 300
 gtccaactac gcgcagctcc tgtacgagtt cgacaaggac atcgagaggg cggagatgta 360
 cttcaagcaa gcggtggccg ncgagccggc ggacggcgaa gcgatgccga ggtacggcat 420
 gttcctgtgg cacgccccg 439

<210> 1089

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-H3

<400> 1089

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 ttgcctcctt atgctccttg gtctttctgc aagtgtctgt acggcgacca ttttcccgca 120
 atgctcgcaa gctcctatag ctccctctct tccccgtac ctctcaccag cgggtgtctt 180
 ggtatgtgaa aacccaattc ttcaacccta caggatccaa caggcaatcg cagctggcat 240
 cttaccttta tcaccttgt tctccaaca atcatcagcc ctattacaac agttaccttt 300
 ggtgcattta ttggcacaaa acatcagggc acaacaacta caacaacttg tgctagcaaa 360

ccttgctgcc tactctcagc aacagcagtt tcttccattc aaccaactag gttcattgaa 420
 ctctgcttct tatttgcaac a 441

<210> 1090

<211> 454

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-H4

<400> 1090

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 agcaccaatg gcggccaaga tattttccat ccttatgctc cttgctcttt ctgcatgtgt 120
 tgctaacgcg accatttttc ctcaatactc acaagctcct atagctgccc ttcttcccc 180
 ataccttcca tcaatgaccg ctttagtatg tgaaaacca gcccttcaac cctacaggat 240
 ccagcaagca atcgcaacaa gcaacttacc tttatcacac ctgttctttc aacaatcgcc 300
 agccctatct ttgggtgcagt cattgggtaca aaccatcagg gcagaacagt tgcagcaact 360
 cgtgctacca gtgatcagcc aagtagctct ggcaaacctt tccccctact ctcagcaaca 420
 acaatntctt ccattcaacc aactgtctat actg 454

<210> 1091

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-H5

<400> 1091

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 gctaccaaga tattagccct ccttgcgctt cttgcccttt ttgtgagcgc aacaaatgcg 120
 ttcattatct cacaatgctc acttgctcct agtgccatta ttccacagtt cctcccacca 180
 gttacttcaa tgggcttcga acacctagct gtgcaagcca acatgcaaca acaagcgctt 240
 gggcgagcgc tcttacaaca accaattgcc caattgcaac aacaatcctt gccacatcta 300
 acaatacaag ccattcacaac gcaacagcaa caacagttcc taccagcact gagccaccta 360

gccatggtga accctgccgc ctacttgcaa gagcagctgc ttgcatccaa cccacttgct 420
 ctggcgaacg tagttgcaaa ccagcaacaa c 451

<210> 1092

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-H6

<400> 1092

atctgggagg taacgacctg gttgtgaggc gagacgtgag ggagaaaaac atattttacgc 60
 tacgcgctgt cacgcttcgc gcgtgacgca cgacacacga aactcgtgct ttaaaggagt 120
 agagatatatac agttttttgtg tataacataa accaacaatga gctgcagcgg ttagagacta 180
 gtgcttttgtt cctagagacc atagttcgaa tcccagtgagg ggtgcctttt tgatatttcg 240
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 gagngagcgg gttgcatcga gcgggcgtac caagggagat acttccgttn tatattagta 360
 gagatgttta tgaagcaagc attggatttt tccttcctga tcccagaata acttcagctt 420
 atgctctgc 429

<210> 1093

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-H7

<400> 1093

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 ccgcctgcaa ccctttcttc ccttctcggg catcgtgacg gcatcacgcg cgcgctctcc 120
 tcttccacga gtccgtcagc ctgctaagtc ttaagatggc gtcaagcaat ggtcagacag 180
 aagctccagc accatctgtc cccaaaaatc ctgctatggc atcatgccgg aagaagaaaa 240
 cagatgatgc taccttcctt gaagatctga aagaccacat ggatgagttc attcacgcct 300
 ccatggatga gcacaagagc tgctttaaga agacaattca gaagatgttt gggatgtcga 360
 aggotgttgc agagagatcc gcggcggaag caaacaagc tgaagttgaa agtgctttgc 420

cacttcagac cagt

434

<210> 1094

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-H8

<400> 1094

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aattgtaatg gtatatggtg atatgcctcg ttgaatcagg tctatgtagg caaagagaaa 120

caaactgttg cagaaatgct tccttatttg agattaggat acatttcaga tccagacgaa 180

atgcagtcta tactctcttc tgaaggagat acatgtccag ttagtccatg tacagagcga 240

gctgtacttg atcagcttgg tggttacctg gaatctcggg tggctggtta tccaacaaca 300

ttgaatgaag atgaagctat gttggcagat ggcagtttgg aaccaaagca ggaagttgct 360

actaggcttg tgaggttgga gaagaagatg ctccatgcct gtctccaggc cacaaatgag 420

tttataact 429

<210> 1095

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-G5

<400> 1095

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aacaaggagg actacaacaa gttctatgag gccttctcca agaacctcaa gcttggcatc 120

cacgaggact ccacgaacag gaccaagatt gctgagctcc tgaggtagca ctcgaccaag 180

agcgggggatg agctgaccag cctcaaggat tatgtgacca ggatgaagga gggccagaac 240

gacatcttct acatcactgg tgagagcaag aaggctgtgg agaactcccc gttccttgag 300

aagctgaaga agaggggcta tgagggtgctg ttcattggtg atgccattga cgagtattct 360

attggacagc tgaaggagtt tgagggcaag aagctcgtct ctgccaccaa agagggcctg 420

aagctgga 428

<210> 1096
 <211> 316
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-F12

<400> 1096

gaccaccggt gtcttcagta tgtgaaaacc caatttttaa accctacagg atccaacagg 60
 cattggcagc atgcttttta ccttaatcac ccttggctct ccaacaccgg tcatgcccta 120
 ttacagcagt tacctttgca gcatttggtg gcccaaaact tcaaggccca acatctacat 180
 caactcgggc taggaaacct tgctgcctac tttagacacc agaagtttct tccattcaac 240
 caactggctg attagaactc tggtgcttat tggcaacaga acttaccatt aagtcagtta 300
 gctgctgcct accccc 316

<210> 1097
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-F2

<400> 1097

cgctcatttc tgcaccccc tccgcgcgg cgccctcacc gccgccggag aagatgggtc 60
 gcgtgagccg cgcgcagcgt aagggtgcgg ggtccgtggt caagtccac acccaccacc 120
 gcaagggccc cgccgccttc cgctccctcg acttcggcga gcgcaacggg tacctcaagg 180
 gcgtcgtcac cgacgtcatc cagcaccgg gccgtggcgc gccgctcgcc aaggtcactt 240
 tccgccaccc attcaggtac aagcaccaga aggagctctt tgtegcagcc gagggcatgt 300
 acacgggcca gttcgtctac tgcggtcgcc gcgccaccct ctccatcggc aacgtgctgc 360
 ccctccgcgg gatccctgag ggtgccgtcg tctgcaacgt cgagcaccac gtcggtgacc 420
 gcggtgtc 428

<210> 1098
 <211> 435
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-054-Q1-K1-F3

<400> 1098

ttcatcatca ctccactagc cagtcagcta ctggcctaaa gctaggccgc ttcttttcgt 60
ttaagccaat ccattctcatc tccgacaagc gaagcagagc actggcatga gcatggaccg 120
catggcgcg cggtccgtgt ccttgctcct cgtcttggt ctcttggccg ccgcggcgtc 180
ggcggactcg tggctgtacg agaagttcac gacggagggc aacgtgcgcg cggactacaa 240
cgcgcagggg cagcagggtga cgtctctgat cctgacgcag cagtccggcg gcgccttcag 300
ctcgcggcag aagtacctgt acggggaggtt cagcatccag atgaggctga tccccggcaa 360
ctccgcgggc accgtgacct ncttctacct gtcgtcgggc gacgggcccg ggcacgacga 420
gatcgacatg gagtt 435

<210> 1099

<211> 433

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-F6

<400> 1099

cgtcggattc ggaggctcag ttattactga aaagataata cagtacctat ggcttctggg 60
gacgcctgtc gaggagacct cgccctgctg attctgtacc tgaacaaggc cgaggcgcg 120
gacaagatct gccgagcgat ccagtacggg tccaagttca tcagcaacgg cgagccagg 180
cctgcgcaga acgtcgacaa gtccaccagc ctggcccggg aagtgttacg gctctgtaag 240
ttcgtcaacg atctgcacgc tttgatcagc cctactgccg aggggactcc gctcccgtg 300
atcctactcg ggaagtccaa gaacgcgatg ctgtcgactt tgctcttctt ggaccagatc 360
gtgtgggcgg tgaggacagg aatatacatg aacaaggagc gggcggaggtt tctcggnagg 420
atagcgttct act 433

<210> 1100

<211> 274

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-F7

<400> 1100

gcattcaaaa accccctaata gaaacgcaat taccaccaac taaccacccat gggttcccag 60
aaaataatcc ttttttgggc tcttggcctt tttgggaacc ccaccaaagg cgtcaatatt 120
tcacacaggt taattgggtc tataggccat atttcacaag ttctctcttc acagtacact 180
aagtggcttt aacacacaca tgtgcaagac tatacgggtat aaaaagcgct cttggcgagc 240
gcgtttcaac aacccaatgt gcaaattcaa caac 274

<210> 1101

<211> 329

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-F8

<400> 1101

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aaagaacaag tgaatacatg gtggcacctt gcgagcatat atttcactca ggctgtttac 120
agcgttggat ggacattaag atggagtgcc ctacttgccg gcgctcccta ccaccagctt 180
agatgagggt ttgtatcata tataatagtg aacaagaagt aggtagctca gcttatacaa 240
ggtaggggaa ctgatgtaca ataaggtgag gctgcaatcg tgtgaaagct atgaacagaa 300
ctgtagaaaa gttttatact attgatttc 329

<210> 1102

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-F9

<400> 1102

gtcattcttg gtcaaatcaa aaactggaga ttctgtgaaa tgggaaggta ttgaccgggg 60
ggaattggaa tctaagggcc ctttggatgg tcttgggaag agggccaccc ttgccttcac 120
tacctgccag ggctggacc acctttaagt tgggggggggt taatcaagtg gatacctatg 180

cggttccttt gggaaaggat gctcaagtgg tccccgacct cagggttttt ttaaaagggt 240
 gcaatgctgc cttacatggt atcgtaaaat tggaagggtgc aaactccatc cccaactaac 300
 attcaatcat cacagcatct gatggggcta tgggtgccag gggtgacctt ggagctgagc 360
 tgcccattga ggagggtgccg ctgttgccagg aagaaattat agaatgtg 408

<210> 1103

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-G1

<400> 1103

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 ctctcagcaa caacaatttc ttccattcaa ccaactgtct acactgaacc ctgctgctta 120
 tttgcagcaa caactattac catttagcca gctagctact gcctactctc agcaacaaca 180
 actttctcca ttttaaccaat tggcgcgact gaaccccgct gcttatttgc agcagcaaat 240
 actactgcca ttttagcgagc tagctgcagc aagtcgtgct tccttcttga cacagcaaca 300
 gttgctgcct ttctacaagc agtttgcggc taaccccgca accctcttac aactacaaca 360
 attgttgccc tttgtccaac ttgctttgac aaaccagca gccttctacc aacaacaca 419

<210> 1104

<211> 282

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-G10

<400> 1104

aaggcaacca atccatctgg actcgtgggg aagtttcgat ctgcccggg tcgacttacg 60
 aaggttctag gaacgttcct ccgtccgtcc ggagaaggag caagcaggag gcggtgatga 120
 tccaggttgg tctcaacgac cgactggcta taaaagggca gctcaagtgc aacgatgacg 180
 acaccatcgg agacctcaag aaagctggcg ttgtgcatac ggtgacgcgc cccgagaaga 240
 tccgcatcca gatgtgctac aacatctaca cggaccacat ta 282

<210> 1105

<211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-054-Q1-K1-G11
 <400> 1105

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 taagcttctt ggtctttctg gaaggggctt gttccgggaa catttttccg gaatgggtcc 120
 aaggcttcta atagcttcct ttcttcccc gtactttctca ccagcgggtg cttcgggtatg 180
 tggaaacccc aattttttaa ccctacagga tccaacaggc aatcgcagct ggcattctac 240
 ctgtatcacc cttgggttctt caacaatcat cagccctatt acaacagtta cctttgggtgc 300
 atttattggc acagaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
 ctgcctactc tcagcaacag cagttttctt cattcaacca actaggttca ttgaactctg 420
 cttcttattt gcaac 435

<210> 1106
 <211> 410
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-054-Q1-K1-G12
 <400> 1106

cccacgcctt cgcgggcgcc ttgggtcaga aacacaccaa gcgaaacaca tttgccaccg 60
 gctaaccacc atgggttcca agaaattaat ccttctctggg cctcttgggc cttttggcaa 120
 cgccaccaa ggcgtcaata attccacatg gctaattggc tccaagttca ataataccac 180
 agttctctca acaagtacct taaaggggct tcgaccacca agtgggcaaa gccttttaggc 240
 tacaacaggc aatggcgggc accgttttac accaaccaat ttcccagttg caacaacaat 300
 cctgggcaca tctaacattc caaaccatcg aaccgcacca gcaacaacaa ttcctaccag 360
 cactgagcca cctagccatg gtgaaccctg ccgntactt gcaacagcag 410

<210> 1107
 <211> 321
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-054-Q1-K1-G2

<400> 1107

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aatggagcaa ggacaatgtg taagattcga tacagtgacc aactgaagc atggcgcgca 120
tgcgagata catctactac catttaggca gctagcaaca gccgactctt aggaacgaga 180
acaccaaca cttaaacaat acaggataca gcacgcacgc tacagatggc aagcaaccta 240
tactaccgtc gttcatcgag caagcatgag ccctgacaca ctagctacct gacacagcat 300
acagttggca cacaacatac a 321

<210> 1108
<211> 442
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-054-Q1-K1-G3

<400> 1108

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taacctgctg cgcggtctct cggggagccc ctgcgcgcgc ccgccgtcgc cgaccgcctc 120
gggaacctct acaacaagga gccgctcggt gaggcgctgc tccacaagcg cctgcccagg 180
gcgctgtccc acatccgggg cctgcgcgcac atgggtcccca tccacctgca cccagggccg 240
ggcgccgacg ccgccgggga cgaggtcggg ttccagtgcc ccgtcaccgg cctcgagttc 300
aacggcaagt accagttcct cgcgctccgt ggggtcgggc acgtgctcag cgtcaaggcg 360
ctcaaggagg tcaagacgtc cgcggtgcttg gtctgccacg aggagttcgg cgaggccgac 420
aagatgccca tcaacgggac tg 442

<210> 1109
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-G4

<400> 1109

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tatgcgcctt ggtctttctg caagtgtgc taccgcaacc attttcccac aatgctcaca 120
agctectata gcttcctttc tttccccata cctctcacca gcggtgtctt cagtatgtga 180
aaaccaatt cttcaaccct acaggatcca acagggaatc gcagcaggca tcttaccttt 240
atcacccctg ttcctccaac aacogtcagc cctattacag cagttacctt tgggtgcattt 300
gttggcacia aacatcaagg cacaacaact acaacaactt gtgctaggaa accttgctgc 360
ctactctcag caacagcagt ttcttccatt caaccaactg gctgcattga actctgctgc 420
ttatttgcaa caacaacta 439

<210> 1110

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-F11

<400> 1110

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gtttagccct ttttgggctt tttggccttt ttggtgagcg caacaaaatg cgtttccatt 120
atttccaaca atggctcact ttgcttecta gtgcccttta ttgcacagtt ccttccctcc 180
aggtacttca atgggcttcg aacaccagc tgtgcaagcc tacaggctac aacaagcgct 240
tgcggcgagc gtcttacaac aaccaattgc ccaattacaa caacaatcct tggcacatct 300
aaccatacaa accatcgcaa cgcaacagca acaacaattt ctaccagcac tgagccaact 360
agctgtggty aaccctgtcg cctacttgca acagcagttg cttgcatcca acccacttgc 420
tctggcaaac atagttgcat acca 444

<210> 1111

<211> 426

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-D9

<400> 1111

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 ggcgggcagc agccaattcc aaagcgtgac aaagccgctg caaatgattc aacataacctc 120
 aatcctcaag ctcatgatag tgttcttgga atcattctgg gagtggtgc tgggactaga 180
 ttgtaccctt tgacaaagaa gcgtgccaaag cctgcagtgc cattgggtgc caactataga 240
 ctgattgata ttcctgtcag caattgtctc aacagcaaca tatccaagat ctatgtgcta 300
 acgcaattta actctgcttc cctcaaccgt cacctctcaa gagcctacgg gagcaacatt 360
 ggagggtaca agaatgaagg gtttgttgaa gtcttagctg cacagcagag cccagataat 420
 ccaaac 426

<210> 1112
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E1

<400> 1112

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 gatcgttgcc cttgctctcc tggcgctcgc tgcgagcgcc gcctccagta caagcggcgg 120
 ctgtggctgc cagacaccac cgtttcatct accgcctcgc ttctatatgc cgcctccgtt 180
 ctatctgccg ccgcagcagc agccgcagcc atggcaatac cccactcaac caccgcagct 240
 aagcccgtgc cagcagttcg gatcctgcgg cgtcggcagc gtcggcagcc cgttcctggg 300
 ccagtgcgtc gagttcctga ggcaccagtg cagcccggcg gcgacgccct acggctcgcc 360
 acagtgccag gcgctgcagc agcagtgtg ccaccagatc aggcaggtgg agccgctgca 420
 ccggtaccag gcc 433

<210> 1113
 <211> 425
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E12

<400> 1113

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ccttgctgcc tactctcagc aacagcagtt tcttccattc aaccaactag ctgcattgaa 180
ctctgcttct tatttgcaac aacaacaact accattcagc cagctatctg ctgcctaccc 240
ccagcaattt cttccattca accaactgac agcattgaac tctcctgctt atttacagca 300
gcaacaacta ctaccattca gccagctagc tgggtgtgagc cctgctacct tcttgacaca 360
accacagttg ttgccgttct accagcacgc tgcgcctaac gctggcaccc tcttacaact 420
gcaac 425

<210> 1114

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E2

<400> 1114

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agttggccag agctcccat ttcttaacaa gcccttgctg ccgtttgagg aatggaacat 120
agatttctct gagataacaa ttggcacgcg gggttgaata ggattcttcg gagaagtttt 180
ccgtgggtata tggaatggaa ccgatgttgc catcaaagta tttctagaac aggacttgac 240
aactgaaaac atggaagatt tttgcaacga gatatacatc ctgagccggt tgcgacattc 300
aaacgttata ttgcttctcg gtgcatgcat tacacctgca cacttgtcaa tggttactga 360
atatatggaa atgggatcac tgtattatct catccatatg agtggt 406

<210> 1115

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E3

<400> 1115

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agccgectca gctccaaggg agcccaagcg aaaccactct gcagaccacc atgaactatg 120
ccagctagct ggttacagtg ccgccctccc gcgtgtgcac gaccaccgcg taagaggtag 180

tcgccttatg accggccaag aacagcggct cgctcgccgc tgcacgccag cgccaaggat 240
 cccatcacgg agtgagggca gaagtcaatg aatctggaag tgcatagact gttgatgcac 300
 tctgacgaag ctgacatgat ctgcttccaa gacttgatcg caacagtgcac ctttctgaga 360
 gcacatgaca ggctgcagtg actacagctt cgatgagcac gaagtataga gcagatatca 420
 ctgtagatga tattga 436

<210> 1116

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-E4

<400> 1116

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 agccgagaat tttttccctc cttgcctcc ttgctctatc agcaagcgct gctacctcta 120
 ctattattcc acaatgctca caacaatacc tctctccggt gacagccgcy ggatttcaac 180
 acccaactat acaatcctac atgctacatg aggccatcgt agcaagcatc ttacgggtcat 240
 tagcattaac cctccaacag ccatatgccc tattgcaaca accatcctta gtgcatctgt 300
 atctccaaag aatcgcgaca caacaactac aacaacagtt gctaccaaca atcaatcaag 360
 tagttgcagc gaaccttgct gcttatctcc agcaacaaca atttcttcca ttcaatcaac 420
 tagcntgggt gaaccctgc 439

<210> 1117

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E5

<400> 1117

agccttcggc cacgccttcg gccaaagcctt ccgccaatcc ttccggaagg caggacaaaa 60
 tgggtggcggc cgtggcgctg ccttcgctcg cggaaccttc cgccggccgt ccccatccga 120
 catacaagga ggaccttcgg caaggtaggt cacaacaaca acgatcaatg atagggtac 180
 gggagggccc gcccataggc gtgcctgtga ggccgagaag aagatcaccg tgctgatcaa 240

ggatgtttga atcgggggtca ccatgcttga tcaactgtgt ggtgagcatg acaaactagt 300
 ggatatcatc accgtactca ggcagagca tgacatagtc gtgcgccgac caatgatatg 360
 gaaaaggatc tcgttgggtc gtcattctta tcactttgca aaaatctatg ctcaaggcat 420
 attcaccatg cttctggc 438

<210> 1118

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E6

<400> 1118

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 attacatcag ttacctttgg tgcatttatt ggacaaaaac atcagggcac aacaactaca 120
 acaacttggtg ctagcaaacc ttgctgccta ctctcagcaa cagcagtttc ttccattcaa 180
 ccaactagct gcattgaact ctgcttctta ttgcaacaa caacaactac cattcagcca 240
 gctacctgct gctaccccc agcaatttct tccattcaac caactggcag cattgaactc 300
 tcttgcttat ttacagcagc aacaactact accattcagc cagctagctg gtgtgagccc 360
 tgctaccttc ttgatacaac cacagttggt gccgttctac cagcacgctg cgcctaacgc 420
 tggcacccc 428

<210> 1119

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E7

<400> 1119

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 tctttctgca agtgttgcta ccgcaaccat tttcccacaa tgctcacaag ctctatagc 120
 ttcccttctt ccccatacc tctcaccagc ggtgtcttca atgtgtgaaa acccaattgt 180
 tcaaccttac aggatccaac aggcaatcgc aacaggcatc ttaccattat cacccttgtt 240
 cctccaacaa ccgtcagccc tattacagca gttacctttg gtccatttgg tggcacaaaa 300

catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcat actctcagca 360
 acatcagttt cttccattca accaactggc tgcattgaac tctgctgctt atttgcaaca 420
 acaattacca ttc 433

<210> 1120
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E8

<400> 1120

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 cccgcgtcgt ggacctctac ggcgacatgt cagggctcctt cgcccgcgcc gtcgccgcca 120
 agaaagacgc cgcaggcgac aagtcggggc ctaagaggcc ccgctccgcc ggcgctggag 180
 ggcagcagca gtagagccgg cgtcttatcc agttaatcca tcagaggagg ctccgtcgtg 240
 attgacggcg ggggtcagga aacttcgggg ttgggggtggg tgcactgcat tggaaacctc 300
 cttttttttt ttctccgtcc ggtgaaagg gacttgaatg atgtactgct ggattaacta 360
 gtttggtgtt gagaattgag atggacatgg cgtggacacc tttctggtgt c 411

<210> 1121
 <211> 397
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-E9

<400> 1121

gtgtggcaaa agtgaagaac ctctacaaag aacttgacct agaggcggtta tttcaggagt 60
 acgagaatga gagctacaag aagctgattg cagacattga agcccagcca agcattgcgg 120
 ttcagaaagt gctgaaatcc ttcttgcaac agatctacaa gaggcagaag taggggtgctc 180
 ttggataaac gagctcagga gtcgttactc cttecgcatgc ttgacataac cggacttcct 240
 cacctggttg ctctagtatg atgtggagcg tctagttaaa aaaaatcgat gtagtatgaa 300
 gcaccttgct gctctgaata ttaacaggca attaaggcaa ggtgctgttt cggtttggtg 360
 gaccgcatgt tgcagataat aaattagttg ttttgctc 397

<210> 1122
 <211> 415
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-F1

 <400> 1122

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cgcaaattgc accaagaaat ccatcgagag gccgtcgaca ggggaattaa tggcgtcgtc   60
gtctagcagc agccaccgtc gcctcatcct cgcagccgcc gtctgtctct ccgtgctcgc   120
ggctgccagc gccagcgccg ggacctcctg cgtgccgggg tgggcatcc cgcacaaccc   180
gctcccagc tgccgctggt acgtgaccag ccggacctgc ggcacggggc cgcgcctccc   240
gtggccggag ctgaagagga gatgctgccg ggagctggcg gacatcccgg cgtactgccg   300
gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg cggggcccg acgcgcagct   360
ggagggccgc ctagaggacc tgccgggctg cccgcgggag gtgcagaggg gattc       415
  
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<210> 1123
 <211> 422
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-054-Q1-K1-F10

 <400> 1123

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agcaaagcgg cagtgcgtaa agaggatcgt cgaacagaac aagctggaga tggtcacgg   60
tctcgtcggg tgcctggctc tgtcagctgc cagcgctct gcaatgcaga tgccctgccc   120
ctgcgcggag ctgcagggct tgtacggcgc tggcgccggc ctgacgacga tgatggggcg   180
cggcgggctg taccctacg cggagtacct gaggcagccg cagtgcagcc cgtggcggc   240
ggcgccctac tacgcccggg gtgggcagac gagcgccatg taccagccgc tccggcaaca   300
gtgctgccag cagcagatga agatgatgga cgtgcagtcc gtcgcgcagc agctgcagat   360
gatgatgcag cttgagcgtg ccgctgccgn cagcagcagc ctgtacgagc cagctctgat   420
gc                                                                 422
  
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<210> 1124

<211> 447
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D8

<400> 1124

ctgacagcat ggtcggcggc ggcggcggtg atgcttccgc gaaaggcgga cgaggctcca 60
agcagagcgg cggcgagtg gagggtagt cgagcaatgc cacagaaagg cgaagagatg 120
aagcaactga gaatgcctc gccgtgaaag ggaatacccc tagcagggga acaatggcga 180
tgacaccggg gcagcttagc gcacgcaaaa ataggcagaa caggatcatg caaacctag 240
ctctgatccc tccatcagga tctccgtttg gcaggaatga agaggttgca gccagccgtc 300
aaaaactcta attcacttat gagcgcccta agaaacagtc cgtgagcccc cctagcgttt 360
tgcagtcttg gcctcctctc cgcaccatgc ctagtatcgc tgctgccatt cagcttttgg 420
gagacgccta tataatgcgc ctgatct 447

<210> 1125
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C5

<400> 1125

cagaaacaca ccaagcgaag ctacctagca acgacttaac aacaatggct accaagatat 60
tagccctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
aatgctcact tgctcctagt gccattatac cacagttcct ccgaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagcctaca ggctacaaca agcgcttgcg gcgagcgtct 240
tacaacaacc aattaaccaa ttgcaacaac aatccttggc acatctaacc atacaaacca 300
tcgcaacaca acagcaacaa cagttcctac cagcactgag ccaactagat gtggtgaacc 360
ctgtcgcta cttgcaacag cagggtgcttg catccaaccc acttgctctg gcaaacgtag 420
ctgcatacca acaac 435

<210> 1126
<211> 426
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C6

<400> 1126

cttttagtatg tgaaaaccca gcccttcaac cctacaggat ccagcaagca atcgcaacag 60
gcaacttacc tttatcacac ctgttctttc aacaatcgcc agccctatct ttggtgcagt 120
cattggtaca aaccatcagg gcagaacagt tgcagcaact cgtgctacca gtgatcagcc 180
aagtagctct ggcaaacctt tcccctact ctcagcaaca acaatttctt ccattcaacc 240
aactgtctat actgaaccct gctgcttatt tgcagcaaca acaactacta ccattcatgc 300
agctagctac tgcctactct cagcagcaac aatttcttcc atttaaccaa ttggccgcac 360
tgaacccta tgcttatttc cagcagcaaa tactactacc atttgccag ctagctacaa 420
caagcc 426

<210> 1127

<211> 322

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C7

<400> 1127

agatgggtca agatcgcacg cacaccatca agccggcatg catgcgctgt gctgtcgcgg 60
ccctgggtgac cgtgaccatc tgccaaggct acgtcgagcg gcagatgctc atggacctgc 120
agtgtggca ggaggtccag gagagcccga tgcacgcgtg ccgtcaggtc ctcgaccgcc 180
agttaaccgg cagctgcacg agcggcccgt tccagtgggtg caccgggctc cggatgcagt 240
gctgcacagc agctccagta catgagccgc gagtgccgat gcgccgacat ccggagcatg 300
gtcaggagct acgaggaagc ca 322

<210> 1128

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C8

<400> 1128

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 ctcccttggtc tttctgcaag tgctgctacc gcaaccattt ttccacaatg ctcacaagct 120
 cctatagctt actttcttac ccatacctc tcaccagcgg tgtcttcagt atgtgaaaac 180
 ccaattcttc aaccctacag gatccaacag gcaatcgag cagcatctt acctttatca 240
 cccttggtcc tacaacaacc gtcagtcta ttacagcagt tacctttgct gcatttgctg 300
 gcacagaaca tcaaggcaca acaactacaa caacttgtgc tacgaaacct tgctgtctac 360
 tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc tgctgcttat 420
 ttgcaacaac aactacc 437

<210> 1129

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-C9

<400> 1129

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 ccatggctag aggattgaag aagcatttga agaggctcaa tgcgccaag cattggatgc 120
 tggacaagct tggcggagct tttgctccca agccatcttc tggacctcac aagtctaggg 180
 agtgcctgcc actgatcctc atcatcagga acaggctcaa gtatgctctt acataccgtg 240
 aggtcatttc catcctgatg caacgccatg tacttggtga tggcaaggtc aggacagaca 300
 agacctacc tgctgggttc atggatgtca tttccatccc caagaccaat gagaactaca 360
 ggctgctgta cgataccaag ggccgcttnc gncttcaccc aatcagggat gaggatgcta 420
 agttcaagc 429

<210> 1130

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D1

<400> 1130

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ttttgccctcc ttatgctcct tggatatttct gcaagtgtctg ctacggcgac cattttcccg 120
 caatgctcac aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaaccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcacctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
 aactctgc 428

<210> 1131

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D10

<400> 1131

aaaacacacc aagcgaagcg cactagcaac gacctaacac caatggctac caagatatta 60
 gccctgcttg cgcttcttgc ccttttagtg agcgcaacaa atgcgttcat tattccacag 120
 tgctcacttg ctctagtgc cattattcca cagttccttc caccagttac ttcaatgggc 180
 ttcgaacatt cagccgtgca agcctacagg ctacaactag cgcttgcggc gagcgcctta 240
 caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct acaaaccatt 300
 gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgagccacct agccgtgggtg 360
 aaccctgtca cctacttgca acagcagctg cttgcattca acccacttgc tctggcgaac 420
 gtagctgcat a 431

<210> 1132

<211> 411

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-D11

<400> 1132

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gaccattttt ccaccatggt taacaggttc taatggtttc cttttttccc cggacctttt 120
aacaaccggg gtttcgtatg gggaaacccc attctttaac cctataggat ccaacaagca 180
atcgagctg gcattctacc tttatcacc ttgttctctc aacaatcatc agccctatta 240
cagcagttac ctttggtgca tttattggca canaacatca gggcacaaca actacaacaa 300
cttggtgctag caaaccttgc tgcctactct cagcaacaac agtttcttcc attcaaccaa 360
ctagctgcat tgaactctgc ttcttatttg caacaacaac aactaccatt c 411

<210> 1133

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D12

<400> 1133

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atactgtccc tccttatgct ccttgccttt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgtttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaacctttc tccctactat cagcaacaac aatttcttcc attcaaccaa 420
ctatctacac tg 432

<210> 1134

<211> 427

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-D3

<400> 1134

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gccatggctt ccgatgagag caaaaattca aaaccagaga agccatcttc agcagctggt 120
gcaggcctgc ccaatccgtt tgatttttct tctatgagca acttgctcaa tgacccatcg 180

ataagagaga tggctgagca aattgcaagt gaccctgtgt tcaaccagat ggctgaacag 240
 cttcagaaaa gtgctcaggg tgctggagaa caggggtattc ctgcattgga tcctcaacag 300
 tatatggaaa caatgcaaca agtcatgcaa aaccctcagt ttgagtcaat ggcagagcgt 360
 cttgtgaatg cccttatgca ggatcctgct atgtccagta tgctngagaa cttgaccagt 420
 ccagctc 427

<210> 1135

<211> 225

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D4

<400> 1135

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 ggcgcgggac acaacaacag ctgatcctca gaggtaggga agccatgttc agaaagtcgt 120
 gcaagaatga agaattcgag aaatcctacg tgtatgacga ggcagatgag tggcagaagg 180
 acgacaagga taagtgaagta agttgcaagt gagactaggt taaag 225

<210> 1136

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-D5

<400> 1136

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 agtagagagg ctagtaggtg gtcctcgaac gaagatgttg gcggtgttca gcgggcaggt 120
 ggtggagggtg ccggcggagc tgggtggcggc gggcagccgg acgccgtcgc ccaagacgaa 180
 ggcgtcgcag ctctgtgggc gcttcttggc cgcgtccgag ccggccgtgt ccgtgcagct 240
 cggcgaccac ggccacctcg cctactccca caccaaccag gcgctcctcc gcccaggtc 300
 gttcgcggcc aaggacgagg tggtctgcct gttcgaaggg gtgctggaca acctgngtcg 360
 gctgagccag cagcacgggc tgtcaagcaa gggcgccaac gaggtgctcc tcgtcatcga 420

ggcctacaag acgc

434

<210> 1137

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-D6

<400> 1137

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tctcgtcgtg tgcttggctc tgtcagctgc cagcgcctct gcaatgcaga tgccctgccc 120

ctgcgcgggg ctgcagggct tgtacggcgc tggcgcgggc ctgacgacga tgatgggcgc 180

cggcgggctg taccctacg cggagtacct gaggcagccg cagtgcagcc cgctggcggc 240

ggcgccttac tacgccgggt gtgggcagac gagcgcctatg taccagccgc tccggcaaca 300

gtgctgccag cagcagatga ggatgatgga cgtgcagtcc gtcgcgcagc agctgcagat 360

gatgatgcag cttgagcgtg ccgctgccgc cagcagcagc ctgtacgagc cagctctgat 420

gcagcagcag cagc 434

<210> 1138

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-D7

<400> 1138

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ttactgcggc attatcttta ccaagtctgg caaccatggg ggcgtcctta ttcattatat 120

tctatctgag atgcagggga attcatccca caacagtttc tactaagaag gaaatacatg 180

gtttctacttt ctcatcttgg cctttctccc caaatcggac tgttctgctg tctgggcctg 240

aaatcttgca tggatatttc tgtgaactag ttgtgtatag gggcaaaaag agtgtcgtgt 300

aagctgtgtt ttttcgtgac gaaaaatgtc gcaccgcctg ttgtgttatg agtcgggttg 360

taccaaattt tgcgaaacgg cagcggtttt tttgcaccn ctgttgccat ctgggggtgat 420

gtacatatatt tttttt 436

<210> 1139
 <211> 448
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-054-Q1-K1-C4

<400> 1139

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 gcgtagcctta ggctcccttg gtctttctgc aagtgttgct accgcaacca ttttcccaca 120
 atgctcacia gctcctatag ctcccttctt tccccatac ctctcaccag cgggtgtcttc 180
 aatgtgtgaa aacccaattg ttcaacccta caggatccaa caggcaatcg caacaggcat 240
 cttaccatta tcacccttgt tcctccaaca accgtcagcc ctattacagc agttaccttt 300
 ggtccatttg gtggcacaaa acatcagggc acaacaacta caacaacttg tgctagcaaa 360
 ccttgctgca tactctcagc aacatcagtt tcttccattc aaccaactgg ctgcattgaa 420
 ctctgctgct tatttgcaac aacaatta 448

<210> 1140
 <211> 432
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-B12

<400> 1140

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 attttgcttc cttatgctcc ttggtctttc tgcaagtgtc gctacggcga ccattttccc 120
 gcaatgctcg caagctccta tagcttccct tcttcccccg tacctctcac cagcgggtgc 180
 ttcgggtatgt gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg 240
 catcttacct ttatcacctt tgttctcca acaatcatca gccctattac atcagttacc 300
 tttggtgcat ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 360
 aaaccttgct gcctactctc agcaacagca gtttcttcca ttcaaccaac tagctgcatt 420
 gaactctgct tc 432

<210> 1141
 <211> 364
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-B3

<400> 1141

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ggacggcgga ggagatggcg gaggcggcga ggcaggccgt cgcggcgctg gagacgctgg 60
agcaggcggt cagggagtgc tccaagggga aggccttctt cggaggggac agggggctcg 120
tcgactcggc tcggggcttg tgggtggctg tacgccaccg agccatctgc ggtgaagccc 180
tgaccgcgga gccgtgtgcy ggcgacgggt gcgctgaggg caggctgtcc gacggacagt 240
ttgagatacc aagcagcgcc gattggctgc gccgtccgcc ttagcatagt ggacatgggt 300
cttttctttt tttttaaaaa aaaattatat gttctatggt tgtttgaaat aaagtactgt 360
tatg 364

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<210> 1142
 <211> 441
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-054-Q1-K1-B4

<400> 1142

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actggagaga caggaagcta tcggtacatg gccctgaag ttttcaagca ccggaaatat 120
gacaagaaag ttgatatctt ctcttttgcc atgattctat atgagatgct ggaaggtgat 180
tcacctttct ccaactacga accttatgag gctgctaagt acgtggcaga tgggcatcgt 240
ccggttttcc gtaaaaatca taccactgag ttgaaagatt tggttgagct atgttggctt 300
ggggatatca gtctgagacc atctttcttg gagatcctca agaggcttga gaagctcaag 360
gagcattatt cacacgagaa ccaactggcat ttgttccagt agcagtgcgc atataatcat 420
acagtatatn nttttactat g 441

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<210> 1143
 <211> 312

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-B6

 <400> 1143

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 tcttccatcg tacctgtcac cagctgtgtc taacgtatgt gaaaacccaa tgcttcatct 180
 atataggatc caactggtat tcgcagtttg catcttacct ttatcactct agttcctaca 240
 gcaatcatca gctatattac agcacttacc tatggtgcat agattgaccc aaaacattag 300
 gtctcatcaa ct 312

<210> 1144
 <211> 435
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-B7

 <400> 1144

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 cttgcttgct gaggcgcatt gccgctctga accagaagta caacgacgct aacgtcgaca 120
 acaggggtgct gagagcggac atggagaccc taagagctaa ggtgaagatg ggagaggact 180
 ctctgaagcg ggtgatagag atgagctcat cagtgccgtc gtccatgccc atctcggcgc 240
 cgacccccag ctccgacgct ccagtgccgc cgccgcctat ccgagacagc atcgtcggct 300
 acttctccgc cacagccgca gacgacgatg cttcggtcgg caacggtttc ttgcgactgc 360
 aagctcatca agagcctgca tccatggtcg tcggtggaac tctgagcgcc acagagatga 420
 accgagtagc agcag 435

<210> 1145
 <211> 438
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-B8

 <400> 1145

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tatacctcct tgcgcttctt gcgctttttg cgagcgcaac aaatgcgttc attattccac 120
aatgctcact tgctccaagt tccattatta cacagttcct gccaccagtt acttcaatgg 180
gcttcgaaca cccagctgtg caagcctata ggctacaaca agcaattgcg gcgagcgtct 240
tacaacaacc aatttaccag ttgcaacaac aatccttggc acatctaaca atacaaacca 300
tcgcaacgca acagcaacaa caattcctac cagcactgag ccacctagcc atggtgaacc 360
ctgccgcta cttgcaacag cagttgcttg catcataccc acttgctctg gcacacgtag 420
ttgcaaacca gccacaac 438

<210> 1146

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-B9

<400> 1146

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gttcattatt ccacagtgtc cacttgctcc tagtgccatt attccacagt tcctcccacc 120
agttacttca atgggcttcg aacatccagc cgtgcaagcc tacaggctac aactagcgct 180
tgcggcgagc gccttacaac aaccaattgc ccaattgcaa caacaatcct tggcacatct 240
aaccctacaa accattgcaa cgcaacaaca acaacaacaa cagtttctgc catcactgag 300
ccacctagcc gtggtgaacc ctgtcaccta cttgcaacag cagctgcttg catccaaccc 360
acttgctctg gcgaacgtag ctgcatacca gcaacaacaa cagctgcaac agtttatgcc 420
agtgctcagt caact 435

<210> 1147

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C1

<400> 1147

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ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc 120
 ttatttgcaa caacaacaac taccattcag ccagctacct gctgcctacc cccagcaatt 180
 tcttccattc aaccaactgg cagcattgaa ctctcctgct tatttacagc agcaacaact 240
 actaccattc agccagctag ctggtgtgag ccttgcctacc ttcttgatac aaccacagtt 300
 gttgccgctc taccagcacg ctgcgcctaa cgctggcacc ctcttacaac tgcaacattt 360
 gctgccattc aaccaacttg ctttgacaaa cccagcagcg ttctaccaac aacccatcat 420
 tgggtggtgcc 430

<210> 1148

<211> 433

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-C10

<400> 1148

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tatnttgccg 60
 ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaacca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
 tttatcacc ttgttctcc aacaatcatc agccctatta catcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgectactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caa 433

<210> 1149

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-C11

<400> 1149

gccacgcgtt cggttcccc ttccggttcg gttccggttc ctgaagggtt tccggggtcg 60

gggtgtgtgg ttaaccggat caagatggcg gcttcggatt gtgaataccg ctgcttcgtc 120
 ggcggcctcg cctggggccac ggacgaccac tcccttcaca acgccttcag cacctacggc 180
 gaggtcctcg agtccaagat catcctcgat cgggagacgc agaggtcccg cggcttcggc 240
 ttcgtcacct tctccacgga ggaggcgatg cggaacgcca tcgagggcat gaacggcaag 300
 gagctggacg gccgcaacat caccgtcaac gagggccagt cccgcggcgg ccgtggaggc 360
 ggcgggggcg gcgggtacgg tgggtggccgt ggaggcggcg gctacggcng tggcgggcgc 420
 cgtgatggc 429

<210> 1150

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C12

<400> 1150

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 atgatgatgg tgattttgct gagctgtatg tgttcaagtg gacaactctt ctgatcccc 120
 ccaccactgt gcttgtgatt aacctggttg gtatagtggc tggagtgtcg tatgctatca 180
 acagtggcta ccaatcatgg ggtccactat tcgggaagct gttctttgca atctgggtga 240
 tctccacct ctaccctttc ctgaagggtc tcatggggaa gcagaaccgc acaccgacca 300
 tcgtcatcgt ttgggtccgtc cttcttgctt ccatattctc gctgctgtgg gtgaagatcg 360
 accccttcac atcccctacc cagaaggctc tttcccgtgg gcagtgtggt gtaaactgct 420
 gaaatgatcc 430

<210> 1151

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-C2

<400> 1151

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atccggcgct gagaagagat ggctaagatc gccgcagccg ccgcgggcggc ggcggcgctg 120
 tgcttcgctg ccctggtggc cgtggccgtc tgccaaggcg aggtcgagcg gcagaggctc 180
 agggacctgc agtgctggca ggaggtccag gagagcccgc tcgacgcgtg ccgtcaggctc 240
 ctcgaccggc agctaaccgg cggcggcgtc ggcgggccgt tccggtgggg caccgggctc 300
 cggatgcggt gctgccagca gctccaggac gtgagccgcg agtgccgctg cgccgacatc 360
 cggagcatgg tcaggggcta cgaggaggcc atgccgnctc tggagaaagg ctggtggcca 420
 tggg 424

<210> 1152
 <211> 430
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-C3

<400> 1152

agaccattag ctttatctac tccagagcgc agaagaacct gatcgacacc atgaggggtg 60
 tgctcgcttc cctcgctctc ctggtctctg ctgcgagcgc cacctccacg catacaagcg 120
 ggggtgctgg ctgccagcca ccgccgccgg ttcatctacc gccgccggtg catctgccac 180
 ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgccgccgg 240
 tccacctgcc accgccggtc catgtgccgc cgccggttca tctgccgccg ccaccatgcc 300
 actaccctac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360
 aacagccgca tccaagcccg tgccagctgc agggaaacct cggcggtggc agcaccgccg 420
 tcttgggcca 430

<210> 1153
 <211> 425
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-054-Q1-K1-B11

<400> 1153

tgcatttatt ggcacanaac atcagggcac aacaactaca acaacttgtg ctagcaaacg 60
 ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 120

ctgcttctta tttgcaacaa caacaactac cattcagcca gctatctgct gcctaccccc 180
agcaatttct tccattcaac caactgacag cattgaactc tcctgcttat ttacagcagc 240
aacaactact accattcagc cagctagctg gtgtgagccc tgctaccttc ttgacacaac 300
cacagttggt gccgttctac cagcacgctg cgcctaacgc tggcaccctc ttacaactgc 360
aacaattgct gccattcaac caacttgctt tgacaaaccc agcagcattc taccaacaac 420
ccatc 425

<210> 1154

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H8

<400> 1154

gagcatacag aaacacacca agcgaagcgc actagcaacg acctaacaac aagggtacc 60
aagatattag cctccttgc gcttcttgcc ctttttgtga gcgcaacaaa tgcgttcattg 120
attccacaat gtcacttgc tcctagtgc attattccac agtgcttgcg accaggtact 180
tcaatgggct tcgaacacct agctgtgcaa gccaacatgc aacaacaagc gcttgcggtgc 240
agcagactta caacaaccaa ttgccaatt gcaacaacaa tgcttggcgc aactaacaat 300
acaagccatg agcacgcaac agcaacaaca gttcctacca gcaactggacc aactagccat 360
ggtgaaccct ggcgactact tgc 383

<210> 1155

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-H9

<400> 1155

cccacgcgtc cggggtctac aaatatacac tactactcca ctaatgtcac atatcgacaa 60
ccaggtgatc tcaagtaatt aacagaaaat atattccatc attgaaaatg agttccgttg 120
ttttgggtgc tactggtagg gagaataaga catcatggcc tgaggtggtg ggcatgtcca 180

tcaaggaggc aagagagatc attcttaaag acatgcccac cgctaacatt caagttctac 240
 cggttggctc gcttgtgacc caagactttc gccctgatcg tggtcgcac ttcgttgata 300
 ttgttgccca gactccaaca gttggctgac aaggatatgc cttatctata ggccaaataa 360
 acaaagccta cttttatgta tcatggctaa tacatcctac atttcttggt atccttgatt 420
 ggtttagctn attagctata tc 442

<210> 1156
 <211> 282
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A1

<400> 1156

ttatgcacca cgcactgcc a ctgattcgct cactcgccca tgggactgct ggcgtcctca 60
 tctatcgctt cttgaccagt ccatggctcc atgcatgaat aacaaggggtg tgcgcggatc 120
 tgtgatgcc aattctatcc tcttcaagtg tcgaagcggt cgatcgtagg tctagtattg 180
 agcctgtgag cagcacactt actgttgac atacatcaga ctctgcttca tgattcatca 240
 ttatacatag cacaatgcat gcctactgat ctacatcata ct 282

<210> 1157
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A10

<400> 1157

gcataatc atactgggtca aaccaagggt gccaggcac atttttcaag gtttggccct 60
 ggaccttttt aagggaataa ttggaaccaa cctggaattt ggcgtgatag agccatcgat 120
 gagcagagtc tagatcattc actttgccac ggaggctgcc attactatcc tgaggattga 180
 cgacatgatc aagcttacca aggaagaaga gggtaacgaa gagtaagcag cccaccagta 240
 gtgggctagt ggactcccat gggatgggtg ccatagcatg tagcacttgc tgtttcactt 300
 atcgtgcact tatgcttgct gtgagcattc gttcgttaga aaagtgaata cggatgtgta 360
 tcaatccgtg ctgggtgact atgactcacg gatgaatcaa ataattgcgt atattggggc 420

caaaaca

427

<210> 1158

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A11

<400> 1158

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taatggcgctc gtcgtctagc aggagaccgc gacgtctcat cctcgcaggc ggcgtgctgc 120

tctgcgctgct cgcggtgcc agcgccagcg ccgggacctc ctgcggtgccg gagtgggcca 180

tcccgcacaa cccgctcccg agctgccgct ggtacgtgac cagccggacc tgcggcatca 240

ggccgagccg tccgtggccg gagctgaaga ggagatgctg ccgggagctg gcggacatcc 300

cggcgctactg ccggtgcacg gtgctgagca tctcatgga cggcgcgac cgcgcgggcc 360

cggacgcg 368

<210> 1159

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A12

<400> 1159

agaccaacta gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt 60

gcctcgttat gtccttggc ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat 120

gtcgcaagc tctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 180

tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240

tacctttatc acccttggtc ctccaacaat catcagccct attacaacag ttacccttgg 300

tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc 360

ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact 420

ctgcttctta tt 432

<210> 1160

<211> 441
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-A2

 <400> 1160

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 atatttctccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
 gcttcagtat gtgaaaaccc agctcttcag ccctataggg tccaacaagc aatcgagca 240
 agcaacatac ctttatcacc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
 tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
 caactgtcta cactgaaccc t 441

<210> 1161
 <211> 439
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-054-Q1-K1-A4

 <400> 1161

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 gctccttggt atttctgcaa gtgctgctac ggcgaccatt ttcccgaat gtcacaagc 120
 tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcaaggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 ttgcaacaa caacaacta 439

<210> 1162
 <211> 339
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A5

<400> 1162

gcgccaacgt ctgcaggacc gaggggttcc cgggcggcag gtgccgcggc ttccgccggc 60

gctgcttctg caccacgcac tgccactgat tcgctcgctc gccagcggc cggctggcgt 120

cgccgtcgat cgcgtcgca ccagtccatg gctccatgca tgaataaaa ggggtgccgc 180

ggttttgtgat gccaaattgt atcctcgctc tgtgttgaag cgttcgatcg tcggtctagt 240

agtgtgcctg tgagcagcgg cgtgctgttg tacgtacgct tgcctctgtt ccatgtttcg 300

ggattttcca tagcaaatgc atgcgtcgag atctacatc 339

<210> 1163

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A6

<400> 1163

catcagtgca gcccgacggc gacgccctac tgctcgctc agtgccagtc gttgcggcag 60

cagtgttgcc agcagctcag gcaggtggag ccgcagcacc ggtaccaggc gatcttcggc 120

ttggctctcc agtccatcct gcagcagcag ccgcaaagcg gccaggctcg ggggctgttg 180

gcggcgcaga tagcgcagca actgacggcg atgtgcggcc tgcagcagcc gactccatgc 240

ccctacgctg ctgccggcgg tgtccccac tgaagaaact atgtgctgta gtatagccgc 300

tggctagcta gctagttgag tcatttagcg gcgatgattg agtaataatg tgtcacgcat 360

caccatgggt ggcagtgtca gtgtgagcaa tgacctgaat gaacaattga aatgaaaaga 420

aaaaagtatt 430

<210> 1164

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A7

<400> 1164

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 tgggggttacc cggccttgcg ctaagtgcc tttatgtgac cgcattcacag gcgtgcataa 120
 ttccacattg ctcaacttgc ctagtgcca taatttcaca gtttgtgcca ccagttactt 180
 caatgcgctt cgaacaacta gctgtgcatg ccaacatgca tcaacatgcg cttgctgcca 240
 gcgtcttact acaactaatt gcctaattgc gacaactata cttggcacat ctagcaatac 300
 aagctatcac aacgcatcag gaacaacagc tactacc 337

<210> 1165

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-A9

<400> 1165

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 cgaccaagat attttccttc cttatgctcc ttgctctttc tgcattgtgtt gctaacgcga 120
 caattttccc tcaatgctca caagctccta tagcttcctt tcttccccca taccttccat 180
 caatgatagc ttcaagtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa 240
 tcgcagcaag caacatacct ttatcaccct tgttgtttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cacagcagct gcagcaactc gtgctacctg 360
 tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc 420
 cattc 425

<210> 1166

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-054-Q1-K1-B1

<400> 1166

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 ttgtcgaccc ggatccgagc taggcacccg cacgaccacc cgctcctgc cggtcaccgg 120
 gacctagcat cgccgggagg cgccggggga ggggaaggta ggcgatgagg aaacgtgagc 180

gggagaaccc gtgcgggatc tgcggggcact accacaagta cgaggagggg gaggtatgcg 240
 gngtgtgcgg tcaccgctgg aaaccgtcgg acggagaggg cgccctgtcg aggcacgagt 300
 ccgtcttccc cacagagggtg ctcaaggact ttctcttctt cgggagctac gacaacgcct 360
 cacgctccga ggtcctcaga acgctcagta tctcccacat gcttaatact gtgcctgatt 420
 gccacaatc 429

<210> 1167

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-054-Q1-K1-B10

<400> 1167

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 cagatgctgc accaaattgg cccaggtctg actcaactag ctgcggcaaa ccctgctgac 120
 tacttacaac agttgcttac attcaaccaa ctggctgtgt caaactctgc tgcgtacctt 180
 caacagcgac aacagttact taatccatag ccagtggcta acccattggg cgctacctta 240
 ctgcagcagc aacaacaatt gctgccatac aaccagttct ctttgatgaa ccctgccttg 300
 cagcaaccca tcgttggagg cgccatcttt cagattacat atgagatgta ctcgacaatg 360
 gtgcctcat accgacatgt gattgctaga aataatcaat atattgactg agatctatct 420
 cgatatattc ctgaactatg atcatcatat 450

<210> 1168

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H7

<400> 1168

cagcattcaa aaacacacca agcgaagcgc actagcaacg acctaacacc aatggctacg 60
 aagatattag ccctccttgc gcttcttgcc ctttttagtga gcgcaacaaa tgcgttcatt 120
 attccacagt gctcacttgc tcctagtgcc attattccac agttcctccc accagttact 180
 tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcgggc 240

agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
 caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
 gccggggtga accctgtcac ctacttgcaa cagcagctgc ttgcatccaa cccacttgct 420
 ctggcgaacg tagctgcata cc 442

<210> 1169
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G2

<400> 1169

gtaagatgcc tgttgcgatt atcacccttg ttcctccaac aaccgtcagc cctattagag 60
 cagttacctt tgggtccattt ggtggcacia aacatcaggg cacaacaact acaacaactt 120
 gtgctagcaa accttgctgc atactctcag caacatcagt ttcttccatt caaccaactg 180
 gctgcattga actctgctgc ttatttgcaa caacaattac cattcagcca gctagtgtgt 240
 gcctaccccc agcaatttct tccattcaac caactagcag cattgaactc tgctgcttat 300
 ttacagcagc aacaactact accattcagc cagctagctg atgtgagccc tgctgccttc 360
 ttgacacaac aacaattggt gccgttctac ctgcacgcta tgcctaacgc tggcacccctc 420
 ttacaact 428

<210> 1170
 <211> 443
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-G3

<400> 1170

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 ggcgagcgca acaaatgcgt tcattattcc acaatgctca cttgctccaa gttccattat 120
 tacacagttc ctcccaccag ttacttcaat gggcttcgaa caccagctg tgcaagccta 180
 taggctacaa caagcaattg cggcgagcgt cttacaacaa ccaatttccc agttgcaaca 240

acaatccttg gcacatctaa caatacaaac catcgcaacg cagcagcaac aacaatgtct 300
 accagcactg agccacctaa ccatggtgaa ccttgccgnc tacttgcaac agcagttgct 360
 tgcacaaac ccacttgctc tggcaaacgt agttgcaaac cagccacaac aacagctgca 420
 acagtttctg ccagcgctca gtc 443

<210> 1171

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G4

<400> 1171

attttcagca ttcaaaaaca caccaagcga agcgactag caacgaccta acaccaatgg 60
 ctaccaagat attagccgctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
 tcattattcc acagtgtctca cttgtctcta gtgccagtat tccacagttc ctcccaccaa 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cagcgagcgc cttacaacaa acaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgccatca ctgaacc 357

<210> 1172

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G5

<400> 1172

ctcctggctc tcgctgcgag cgccacctcc acgcatacaa gcggtagctg cggctgccag 60
 ccaccgccgc cggggcatct accgccgccg gtgcatctgc cacctccggt tcacctgcca 120
 cctccggtgc atctcccacc gccagagcac ctgtcgtcgc cgatccacct gccaccggcg 180
 atccatgtgc cgtcgacggc tcacttgcca gcaggcacca tgccactacc gctactcaac 240
 cagccccgcc tcagagatca tccgcagtca caccatgcc caggccaaca gttcatttac 300
 tataccgtgc caactgcatg gaacctgcga agttggcggc accccgatcc tgggccaatg 360
 cgtctagtct gtgaggcatc acggcagccc gacggcgacg ccctactga 409

<210> 1173

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G6

<400> 1173

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ggcttttctg caagtgtgctg tacggcgacc attttccgc aatgctcgca agctcctata 120
gcttcccttc tcccccgta cctctcacca ggggtgtctt cggtatgtga aaaccaatt 180
cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt atcacccttg 240
ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcattt attggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
caacaacagg ttctttcatt caaccacta ac 392

<210> 1174

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G7

<400> 1174

agcaacatag aaagcacaat agtgtaccaa caatggcagc caaaatattt tgcctcctta 60
tgctccttgg tctttctgca agtgtctgta cggcgaccat tttcccgcaa tgctcgcaag 120
ctcctatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
accaattct tcaaccctac aggatccaac aggcaatcac agctggcatc ttacctttat 240
cacccttggt cctccaacia tcatcagccc tattacatca gttacctttg gtgcatttat 300
tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
actctcagca acagcagttt cttccattca accaactagc tgcattgaac tctgcttctt 420
atttgcaaca acaacaacta cca 443

<210> 1175

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G8

<400> 1175

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cgtcatctag tccgggagcc ggcgacatgg ggtacctcca ggaggcccg gagaatcacg 120
tcaagaagaa ggtcgaggaa gctttgcgga gcaaaatgaa aaaaaggct cttcaggaat 180
gcgatttcta ttgttcaaaa tatgctgagt gtgcacgggg aagaacattt tctgtggtat 240
ggcaatgccg caaacaagca aaagagttga atgagtgcct tcatcaatac acaaatgatg 300
caatcctgga agaatgaag aaggcttata tgattgagca aaagagcaag gagaataatc 360
aataagcaaa aatccattgc acaatgtgca tcacgatcac cctggttgta tggatactgt 420
tggctttgat agaaactatt catgggt 447

<210> 1176

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G9

<400> 1176

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tgctgatcgt tgcccttgct ctctggcgc tcgctgcgag cgccgcctcc agtacaagcg 120
ggggctgcgg ctgccagaca ccaccgtttc atctaccgac tccgttctat atgccgcctc 180
cgttctatct gccgccgag catcagccgt atccatggca ataccctact caaccaccgc 240
agctaagccc gtgccagcag ttcggatcct gggcgctcgg cagcgctcggc agcccgttcc 300
tgggccagtg cgtcgagttc ctgaggcacc agtgcattcc ggccggtacg cctacggct 360
cgccacagtg ccaggcgtg cagtagcaat gctgcc 397

<210> 1177

<211> 79

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-H10

<400> 1177

cgcgtnccggg ataataaaagt tttttgtacg atgtttgtgg cttaccagaa atgagaaagt 60
tcaggactag attcttaac 79

<210> 1178

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H11

<400> 1178

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taaagtttta tgtctgaaaa aaaaaaaaaa aaaaaataaa aaataaaaaa taaaatacaa 120
aaaaataaat aaatactaaa aaaaaataaa aaacatcaaa atcaagaagt gatggccatg 180
aatatacaac gatgcaatca tagatcaact cttacagaca tgcccatcgc taacattgaa 240
atactaccga ctgtctcgtt ctggacccaa tactaacacg ctgacccctga tcgcatcttc 300
cttcatattg tcagccagac tgcaacatgg gacttacact gatatgcctt atcaatagcc 360
caaattgaca aaagttagtg ctatgta 387

<210> 1179

<211> 349

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-H12

<400> 1179

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tccttatgct ccttggctctt tctgcaagtg ctgctacggc gaccattttc ccacaatgct 120
cacaagctcc tatagctttc cttcttcccc cgtacctctc accaacgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagctt ggcattctac 240
ctttatcacc cttgttcctt caacaatcat cagccctatt acagcagtta cctttgggtgc 300
atttattggc acanaacatc anggcacaac aactacaaca acttgtgct 349

<210> 1180
 <211> 387
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H2

<400> 1180

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atcgcgaggg cgcgcccttt tttttttttt tttttttttt tttttttttt ttttttttgt 60
ggggaccata ttgtgaaatg ggacttagta agcattcctc ggtacaggag gtgaacaaaa 120
cctgcgctct aagagcgttg ccgtcctaaa aattattatg catcaagcgc aaacttttcc 180
cagcgcaaaa aagacctatt tcgcctgtta aatgagttcc tctcatcata aggatgacgg 240
acaagagttt tccgttacga ttaaaaaagg atgctggaac taatctttag aatggctgat 300
acaattcccc tgttccaaat atgatctcag ggaacactga acaaaaaaat caggccctgg 360
ctttaaatcc agcctttgct tgtgggg 387
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<210> 1181
 <211> 445
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H3

<400> 1181

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gcgctccgcc gccatccgcc ggcgagatgg cggtgtacct gctgttcgag tcggcctggg 60
gctacggcct attccatgcg tacggtatcg atgagatcgg gcagagcgat gaggccgtgc 120
gctcctacgt gctggacctc gaccgcttag gcaaggccgt caagctcact ggcttcaatc 180
ctttctgctc tgccgtcgac gcgctcaacc agtgcaacgc tatctctgaa ggaatcatga 240
ccgatgagtt gaggagcttg ctggagctga acctgccgaa gcctaattgag gggaagaagg 300
ccaaatacag cctcggcggt gtcgagccca aggtcggctc ccacatctcc gaagtcaccg 360
gcatccccctg tcagagcaac gagttcgtac aggaactggg tcgcggtgta cggcttcact 420
ttgaccggtt catcaacgag cttaa 445
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<210> 1182
 <211> 380
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H5

<400> 1182

gtcagctagc tgctgcctac ccccagcaat ttcttccatt caaccaactg gcagcggggg 60

actctgctgc ttattttacaa cagcaacaga taccaccatt cagccagcta tcttgtgtga 120

gccctgttgc cttcttgaca caacgacagt tgttgccagt ctacctgcac gctgcgccta 180

acgctggcac cctagtacaa ctgcagcaat agctgacatt caaccaactt gctttgaaag 240

acccaactac tagtctacca acaacccatc attggagggtg acctatatta gattgcttat 300

gagttgtact tcaataatga actttttcgg atgatgtttg tggctgcca gaaataagaa 360

tgttcatttc tagattctta 380

<210> 1183

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-H6

<400> 1183

cagcattcaa aaacacacca agcgaatcgc actagcaacg acctaacc aatggctgcg 60

aagatattag ccttccttgc gcttcttgcc ctttttagtga gcgcaacaaa tgcgttcatt 120

attccacagt gtcacttgc tcctagtgcc attattccac aagtcctacc accagttact 180

tcaatgggct tcgaacatcc agtcgtgcaa gcctacaggc tacaactagc gcttgcgggc 240

aaaagcctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct 300

acaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgagccacct 360

agccgtggtg aaccctgtca cctacttgca acagcagctg cttgcattca acccactt 418

<210> 1184

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G11

<400> 1184

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tcgttctcgt cgtgtgcctg gctctgtcag ctgccagcgc ctctgcaatg cagatgccct 120
gcccttgccg ggcgtgcag ggcttgtacg gcgctggcgc cggcctgacg acgatgatgg 180
gcgccggcgg gctgtacccc tacgcggagt acctgaggca gccgcagtgc agcccgtgg 240
cggcggcgcc ctactacgcc ggggtgtgggc agacgagcgc catgtaccag ccgctcacgc 300
aacagtgtcg ccagcagcag atgaagatga tggacgtgca gtccgtcgcg cagcagctgc 360
agatgatgat gcagctcgag cgtgccgctg ccgccagcag cagcctgtac gagccagctc 420
tgatgcagca gcagcagcag ct 442

<210> 1185

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E5

<400> 1185

gcggcgggctg tggctgccag acaccaccgt ttcattctacc gcctccgttc tatatggcgc 60
ctccgttcta tctgccgccc cagcagcagc cgcagccatg gcaatacccc actcaaccac 120
cgcagctaag cccgtgccag cagttcggat cctgcgacgt cggcagcgtc ggcagcccgt 180
tcctggggcca gtgcgtcgag ttcctgaagc accagtgcag cccggcggcg acgcccgtac 240
ggctcgccac agtgccaggc gctgcagcag cagtgtgtcc accggatcag gcaggtggag 300
ccgctgcacc ggtaccaagc gaaatacg 328

<210> 1186

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-E6

<400> 1186

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ccctccagct cccgccgcgc gcgctccgc cgctggacgc tccagctctt gcacgcattc 120
tcggccgccg tcgcgcctgc acgccgtcc tctgcggccg ctccagcttg cccgcgcgtg 180

ctccccctcga ctgctctagc ttctgcacgc cgtcgggtcac caatcgtcgc ctactacgac 240
 ttcggccttc aagcggcagc ttcattccgcg acgtccgcgt cgccgtcttg cgccacgacc 300
 tcacccgagc gctctgccta ctcccgaagc cctcctccgg ggcgcccggc ccagcagttc 360
 ctctttcgca gcgcccggcc catcagttcc tctnccggg tgcccgtcga cccgncgagc 420
 accagcagca gcgtcg 436

<210> 1187
 <211> 459
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E7

<400> 1187

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 tgcgcttctt gcgctttttg cgagcgcaac aaatgcgtcc attattccac aatgctcact 120
 tgctcctagt tccattattc cacagttcct cccaccagtt acttcaatgg ccttcgaaca 180
 cccagctgtg caagcctata ggctacaaca agcgattgcg gcgagcgtct tacaacaacc 240
 aattgcccac tggcaacaac aatccttggc acatctaaca atacaaacca tcgcaacgca 300
 acagcaacaa cagttcctac cagcactgag ccaactagcc atggtgaacc ctgtcgccta 360
 cttgcaacag cagctgcttg catccaaccc acttgcctta gcaaacgtag ttgcaaacca 420
 gcaacaacaa caactgcaac agtttctgcc agcgcttaa 459

<210> 1188
 <211> 412
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-E9

<400> 1188

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 cccgcgtcgt ggacctctac ngcgacatgt cagggtcctt cgcccgcgcc gtcgcccga 120
 agaaagacgc cgcaggcgac aagtcgggcc ctaagaggcc ccgctccgcc ggcgctggag 180

ggcagcagca gtagagccgg cgtcttatcc agttaatcca tcagaggagg ctccgtcgtg 240
attgacggcg gcggtcagga aacttcggcg ttgggggtggg tgcactgcat tggaaacctc 300
cttatttttt tctccgtccg gtgaaagggtg acttgaatga tgtactgctg gattaactag 360
tttggtgttg agaattgaga tggacatggc gtggacacct tcttgttgtc aa 412

<210> 1189

<211> 443

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-F1

<400> 1189

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tagcgaagaa gtgaggagaa gggtctacaa gaactgggtgc aagagcaaga agaaggcttt 120
cacaaagtat gctctcaaat atgaaaatga tgctggcaag aaggaaattc agctgcagct 180
tgagaagatg aagaaatatg cttctgttat cctgtgtcatt gctcatacc agattaggaa 240
gatgaagggt ttgaagcaga agaaggctca cctgatggag attcangtca atgggtggtac 300
cattgctgac aagggtggact atggctacaa attctttgaa aaagagggtcc tggtgatgct 360
gtcttccaga aagatgagat gattgacatc attggtgtga ccaaggggaa aggttatgag 420
ggtgtggtca ctcggtgggg tgt 443

<210> 1190

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F10

<400> 1190

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ttttgcctcc ttatgctcct tgggtcttct gcaagtgtg ctacggcgac cattttccca 120
caatgctcac aagctcctat agcttccctt cttccccogt acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaacct tataggatcc aacagggaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300

ttggtgc

307

<210> 1191

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F11

<400> 1191

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taacccattg gtcgcccgtt tcctacagca gcaacaattg ctgccataca accagttctc 120

tttgatgaat cctgtcttgt cgaggcagca acccatcggt ggaggtgcca tcttttagat 180

tacatatgag atgtactcga taatggtgcc ctcataccga cgtgtgtttc ctagaaataa 240

tcaatatatt gattgagatt tatctcgata taaaaaaatt ttaaaaaaaaa aaaataaaat 300

ctgaagaaaa aatagaaaact aaacaatcag tcacaacaac gac 343

<210> 1192

<211> 361

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F12

<400> 1192

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caacaacaac aacaacagca ccaacaacaa catcaatgtg aaggccaaca acaacatcac 120

caacaatcac aaggccatgt gcaacaacac gaacagagcc atgagcaaca ccaaggacag 180

agccatgagc aacaacatca acaacaattc cagggtcatg acaagcagca acaaccacaa 240

cagcctcagc aatatcagca gggccaggaa aaatcacaac agcaacaatg tcattgccag 300

gagcagcaac agactacaag gtgcagctat aactactata gcagtagctc aaatctaaaa 360

a 361

<210> 1193

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F2

<400> 1193

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gagcagcaac atcatccaca acaacatcat ccacaaaaac aacaacatca accaccacca 120
caacatcacc agcagcagca acaccaacaa caacaagttc acatgcaacc acaaaaacat 180
cagcaacaac aagaagttca tgttcaacaa caacaacaac aaccgcagca ccaccaccaa 240
caacaacaac aacagcacca acaacaacat caatgtgaag gccaacaaca acatcaccaa 300
caatcacaag gccatgtgca acaacacgaa cagaaccctt aaccacaaca aagacagaac 360
catgaacaac aaccatcacc acaatttcag ggatcatgaca agcagcaaca accacaacaa 420
gctcagcaat atcaagcagg ccaggaaaaa tcaca 455

<210> 1194

<211> 184

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F5

<400> 1194

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ttaccgctta tgtggacgat cttattggcg tgatcatgag tttatggata ttgatactgg 120
tgggttaatt actttgtcat agtgtcactc gtttgtattt gtagagcttg ccgttaccac 180
tact 184

<210> 1195

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-F6

<400> 1195

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ttttgcctcc ttatgtcctt tggcttttct gcaagtgtcg ctacggcgac cattttccca 120

caatgctcac aagctcctat agcttccctt cttcccccggt acctctcacc aacgggtgtct 180
tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
ttggtgcatt tattggcaca naacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttggtg gctactctca gcaacagcag gttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca ac 442

<210> 1196

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-F7

<400> 1196

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agcatcttac ggtcattagc attaaccctc caacaaccat atgctctatt gcaacagcca 120
tccttagtgc atctgtatct ccaaagaatc gcggcacaac aactacaaca acagttgcta 180
ccaacaatca atcaagtagt tgcagcgaac cttgctgctt acctncagca acaacagttt 240
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ctaccattta accaacttgt cgggagccct tatgccttct tactgcaaca acagcttctg 360
ccattccatc tgcaagctgt ggcaaacatt gntgctttct tgagacaaca acatttgctg 420
ccattttacc cacaagtt 438

<210> 1197

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-F8

<400> 1197

gaagaaactc cgaccggccg gtgggcggtg gcggcagccg gcaggatctg tgccgcgatg 60
gcgacgtcga acacggcgcg gatggaggac ggcggcgggc acctgcggag caccatcaag 120

aagtggaata tcatctaccc tgtctacctc aactccaaga agacggtcgc cgagggccgc 180
 cgcacgcgcg ctgccaaggc ctgcccggac cccacctgca tcgagatcgc tgactgctgt 240
 tcgcacctca agatcccca cgccatcgag ttggataagg cgtaccctcg ggatttcttc 300
 caggtgggga gggtcagggt gcagcttang aaagatgacg gctccccgt caatcctgct 360
 attaaaacga agaagcagct gatgatccaa gtagcagagc tagttcccaa gcatcacgga 420
 aggacaaag 429

<210> 1198

<211> 274

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-F9

<400> 1198

cccacgcgta cgcgacaaca gttacttaat ccactagcgg aggctagccc attgggcgtt 60
 gccttcctac agcagcaaca attgctgcca tacaaccaga tctctttgat gaaccctgcc 120
 ttgttgtggc agcaacccat cgggtggagggt gccatctttt agattacata tgagatgtac 180
 tcgataatgg tgccctcata gcggcatgtg tctcctagaa ataatcaata tatagactga 240
 gatttatctc ggatgaacaa taagggtgagg ctac 274

<210> 1199

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G1

<400> 1199

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 ccttatgctc cttgggtctt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaacca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
 tttatcacc cttgttcctac aacagtcatc agccctatta catcagttac ctttggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360

tggtactct cagcaacaag cagttcttcc at

392

<210> 1200

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-G10

<400> 1200

ggctgtcata agtgccggtg tcatcgctcc ttgttgcaa ctgcttcaa cagcagagtt 60

tgatatcaag aaggaggctg cttggggccat ctcaaagtct acctctggtg gttctcatga 120

gcaaatacaag tacttgggtg ctgagggctg catcaagcca ttgtgtgacc ttcttgtctg 180

ccctgatccg agaattgtaa cagtttgtct ggaggggtctt gagaatattc ttaaagtagg 240

gcagcatgac aagaccatgg gtgcaacagg tgacactaac gtcttagctc agatgatcga 300

tgaagcggaa ggcttggaag agatcgagaa cctacaga 338

<210> 1201

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E4

<400> 1201

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tatagcttcc cttcttcccc cataccttcc atcaatgata gcttcagtat gtgaaaaccc 120

agctcttcaa ccctataggc tccaacaagc aatcgagcga agcaacatac ctttatcacc 180

cttgtttcaa caatcgccag ccctatcttt ggtgcagtca ttggtacaaa ccatcaaggc 240

acagcagctg cagcaactcg tgctacctgt gatcaaccaa gtagctctgg caaacctttc 300

tcctactat ccacaacaac aatttctttc attcaaccaa ctatctacac tggaccctgc 360

tgcttaattg cagcaacaac tattaccatt cagccaggta gcttctgcct actctcatca 420

ac 422

<210> 1202

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D1

<400> 1202

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gattagccct ccttgcgctt cttgcccttt tagtgagcgc aacaaatgcg ttcattattc 120

cacagtgtc acttgctcct agtgccatta ttccacagtt cctcccacca gttacttcaa 180

tgggcttcga acatccagcc gtgcaagcct acagggtaca actagcgctt gcggcgagcg 240

ccttacaaca accaattgcc caattgcaac aacaatcctt ggcacatcta accctacaaa 300

ccattgcaac gcaacaacaa caacaacaac agtttctgcc atcactgagc cacctagccg 360

tgggtgaacc tgctacctac ttgcaacagc agctgcttgc atccaacca cttgctctgg 420

cgaacgtagc tgcataccag c 441

<210> 1203

<211> 346

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-D10

<400> 1203

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agaagctcta tgggagctta ttcttgcaac tgagaagctt aagggttcttc acttccacaa 120

caatatgact ggagatgaag gtgctatgta tattgctgaa atgggtaagc gttctccaaa 180

tgtagagagt ttcaggtgct cagcaacaag gataggatct gatgggtggag tcgcattgtc 240

tgaggcattg gggacatgca ctgctctgaa gaaacttgat cttagggaca actttgttgg 300

tgttgatgca nggttagctc tcaccgaaac ccttccaaac tacctg 346

<210> 1204

<211> 123

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D11

<400> 1204

ggttgaatgg cagcaaccca tcattggtgg tgccctcttt tagatgtctt atgagggata 60
 gttcaataat aaagtttttt gtctgatgtt tgtggcttcc cagaaataag aaagtacatt 120
 tct 123

<210> 1205
 <211> 124
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D12

<400> 1205

atgacctgaa tgaacaatca tcgccgctag ttgagtcatt tagcggcgat gattgagtaa 60
 taatgtgtca cgcataacca tgggtggcag tgtcagtgtg agcaatgacc tgaatgaaca 120
 attg 124

<210> 1206
 <211> 304
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D2

<400> 1206

ttcaccaggt tgagatcaag cctgagatga tcggccacta ccttgctgag ttctcggggt 60
 cctacaagcc ggtcaagcac ggcaggcccg gtatcgggtgc caccactcc tcgcggttta 120
 ttcctctgaa atgagctggt actcggctct ttagtatccc aagacatttt gtgttgttcc 180
 attccagctc aagaattcaa agctaagcat tgcacaatta tgctgttttg ttggaaggat 240
 ttgagttaat catatctaaa gctgagttgt aaaaaaaaaa aaaaaaaggg ccggcggttt 300
 taaa 304

<210> 1207
 <211> 374
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D3

<400> 1207

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 atggcagcca aaatatatttg cctccttatg ctcccttggtc tttctgcaag tgctgctacg 120
 gcgaccattt tcccgcaatg ctcgcaagct cctatagctt cccttcttcc cccgtacctc 180
 tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc aaccctacag gatccaacag 240
 gcaatcgag ctggcatctt acctttatca cccttggttc tccaacaatc atcagcccta 300
 ttacaacagt tacctttggt gcattttattg gcacaaaaca tcagggcaca acaactacaa 360
 caacttgtgc tagc 374

<210> 1208

<211> 85

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D5

<400> 1208

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 ggcaatgaac tctctctggg agact 85

<210> 1209

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D6

<400> 1209

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 gttgcaaaga cgtcaagtgc tgaaaccata gctcttctgc ctcttggtgt tcttatgcat 120
 ggaactgaag attattcaat accatcatct tccagtcaaa cttttgctga cgtcctccaa 180
 caagctggtg ctcaagcaag gttactattg tacgaaggga aaacacatac agatatcttt 240
 gtacaggacc ctctaagggg tggaagagat ccattgggtg aagacctgtt ggctattatt 300
 catgctgatg atgcaaagc atgtcaaaag aatgcttttag caccaactcc taagaaaata 360
 gttttcgagt ggcaattaa gttggcacgc aaaattagtc cattctagca gtatgaacca 420
 tggagaagct tggagctatg gattt 445

<210> 1210
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D7

<400> 1210

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gctccttggg ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc 120
tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caacctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 420
tttgcaacaa caacaactac 440

<210> 1211
<211> 442
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-D8

<400> 1211

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tgcatccaac ccacttgctc tggcgaacgt agctgcatac cagcaacaac aacagctgca 120
acagtttatg ccagtgtcga gtcaactagc catggtgaac cctgccgtct acctacaact 180
actttcatct agcccgctcg cgggtgggcaa tgcacctacg tacctacaac aacagttgct 240
gcaacaaatt gtaccagctc tgactcagct agctgtggca aaccctgctg cctacttaca 300
acagttgctt ccattcaacc aactggctgt gtcaaactct gctgcgtacc tacaacagcg 360
acaacagtta cttaatccat tggcagtggt taaccattg gtcgctacct tcctgcagca 420
gcaacaacaa ttgctgcat ac 442

<210> 1212
 <211> 450
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-053-Q1-K1-D9

<400> 1212

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 gggctgaacc cagattatga ggatcctgtt atcgtatcat ctaagaagaa aaccgtggaa 120
 gatttctgcg acagaatcca caaggacatg gtcaaacaat ttaaatacgc tctgggatgg 180
 ggttccagtg tgaacataa gcctcagaga gttggcaagg agcatgagct tgacgatgag 240
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 tttctggaag actgggagcg ttgaggattt tgttgagtag tagcctcgcg agaagagctt 360
 gaactcggnc tttgcttgtt ggtgaggctc atatgtaatg ttccctgttc tcagaaaatt 420
 tgctttgatc caaagacaat gtgagtcggc 450

<210> 1213
 <211> 265
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-053-Q1-K1-E1

<400> 1213

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 cgcgcaacgt gctgcagaag ctgcaccggg tcgccaaggc gctgtcattc gccttcaagg 120
 cggaggatgt ggacgaggtg ctccgctcgc ggcgcgagaa ggggttcctt gctggcccca 180
 aggagagcgg cggccacgag gagcgtgagc aagaggagga ggaggaacgc gaaaaacgcc 240
 acagcgtggc gtgtgagagg gaacg 265

<210> 1214
 <211> 416
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-053-Q1-K1-E11

<400> 1214

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actgaaccct gctgcttatt tgcagcaaca actattacca ttcagccagc tagctactgc 120
ctactctcag caacaacaac ttcttccatt taaccaattg gccgcactga accccgctgc 180
ttatttgcag cagcaaatac tactaccatt tagccagcta gctgcagcaa accgtgcttc 240
cttcttgaca ctgcaacaat tgctgccatt caaccaactt gctttgacaa acccagcagc 300
attctaccaa caaccatca ttggtgtgcc ctctttttaga tntcttatga gttaatagtc 360
aataataaag tttttggctg atgttcgggc tttccagaat taagaagtac atttct 416

<210> 1215

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E12

<400> 1215

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ggtgatgttc gggctggaga ctcccctgat ggccgcgctg cagcacctgc tggacgtgcc 120
cgacggcgac gccggcgcg ggcggcgacaa caagacgggc agcggcgga gcgccacgcg 180
cacctacgtc cgcgacgcgc gcgccatggc ggccaccccg gccgacgtga aggagctgcc 240
cggcgcgtac gcgttcgtgg tggacatgcc ggggctgggc acgggcgaca tccgggtgca 300
ggtggaggac gagcgggtgc tggtggtcag cggcgagcgg cgccgggagg agcgcgagga 360
cgacgccaag tacctgcgca tggaacggcg gttgggcaag ttcattgcga agttcgtgct 420
gccggacaac gccgacgtc 439

<210> 1216

<211> 274

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E2

<400> 1216

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catcgttctc gtcgtgtgcc tggctctgtc agctgccagc gcctctgcaa tgcagatgcc 120
 ctgcccctgc gcggggctgc agggcttgta cggcgctggc gccggcctga cgacgatgat 180
 gggcgccggc gggctgtacc cctacgcgga gtacctgagg cagccgcagt gcagcccgt 240
 ggcgggcgcg ccctactacg ccgggtgtgg gcag 274

<210> 1217

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C9

<400> 1217

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 cgaaacacat cgtcgtcgga tcggagatga tgagttccgt cgtcgtggat gctgctgcta 120
 ccagcagcag cgagaagaag acgtcgtggc cggagggtgg gggcatgtcc atcaaggagg 180
 cgacggagac tattctcaag gacatgccc aacggtacat ccagggtgctg cctgttgggt 240
 cgcccgtgac gctggacctt cgccccgacc gagtccgaat cttcgttgac accgtcgcca 300
 tgacttcgac agttgggtga tacataccaa atgcattaaa cagaccctac tgtgtattta 360
 atgtttccag ttaataataa accaggcctt agcttcttgg ttgtccttcc ttggttggtg 420
 ttagcttcta agctactagt acaccattaa aaa 453

<210> 1218

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-E3

<400> 1218

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 agtattccac agttcctccc accagttact tcaatgggct tcgaacacct agctgtgcaa 120
 gccaacatgc aacaacaagc gcttgcgggc agcgtcttac aacaaccaat tgcccaattg 180
 caacaacaat ccttgccaca tctaacaata caagccatca caacgcaaca gcaacaacga 240
 gttcctacca gcacttaacc ccctagccat ggtgaaccct tgccggctac ttgcaagaac 300

cagctgcttg gattcaaccc acttgctctg gcgaaccgta gtgcaaaaca gcaacaacaa 360
ccgctaccac ag 372

<210> 1219
<211> 274
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B12

<400> 1219

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cctttcgtc tcggggagcg cgcctaaacc cacgcttact ccatcatgct atccatccga 120
tacgatcata acgtccaaga tcttggtgac atctactcca caggtctgag aacacgaagc 180
tgcgcaagcc tatatggcta caaacagcga ttgccgccag cgccatacta taaccaattg 240
ccaaattgct acaacaatcc tgtgcacatc taac 274

<210> 1220
<211> 441
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B2

<400> 1220

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ccagccgtgg aggccgagga cgaggacggc gacgagttca gcttccccgt tcctccggtc 120
gccgccgacg cgtgcatcgt gcccggtgtac ccgatcttcg gccggcccc gtccccgcct 180
cggggggagg aggaggagcc ggagacggcc accgtgcggg tgccgctgag ccggctcctg 240
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tggcaggacg aggacgaaga cgacgcctcg ggcggcgccg gggacgagga tctgcaaggt 360
gtgccggcgg agagctactg cctgtgggcg cccggcgggc agtcgccggc gcccggtcc 420
ccgcgccggt gccggaagag c 441

<210> 1221
<211> 396

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-053-Q1-K1-B3

 <400> 1221

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 ccatatatag agtcattttt tgtgacatgt gagaagttgc gtcctgggca acctgatgct 180
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 tcatattcct gtcaagctag tcttgacgag aagcaaatg cttttgtgaa attctcagag 300
 aagcacagaa gattgctgaa tgcattcatc catcaaaacc ctggattact ggagaagtca 360
 ttctcgctga tgttaaaaat tctcgcctg attgat 396

<210> 1222
 <211> 436
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-053-Q1-K1-B5

 <400> 1222

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 ggctgatcc cgatgtggtt gctattgttg agaggttggc tactgtgaaa cacaaattgt 120
 tagttttgtc tggaaagggg ggtgttgga aaagcacatt ctcagcccaa ctctcgtttg 180
 ccctagctga aatggaccat caggttggcc ttcttgacat agatatatgt ggacctagca 240
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 ctgtgtatgt tgagtgaac cttggtgtga tgtcgattgg tttcatgctg cctaataccag 360
 acgatgctgt catatggagg ggtccgagca tgaatggact gatcaagcag ttctttaaag 420
 atgtcgattg tgggga 436

<210> 1223
 <211> 443
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-053-Q1-K1-B7

<400> 1223

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tgctcacaag ctcttatagc ttcctttctt ccccatacc tctcaccagc ggtgtcttca 180

gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcg agcaggcatc 240

ttacctttat cacccttggt cctccaacaa ccgtcagccc tattacagca gttacctttg 300

gtgcatttgt tggcacaaaa catcaaggca caacaactac aacaacttgt gctaggaaac 360

cttgctgctt actctcagca acagcagttt cttccattca accaactggc tgcattgaac 420

tctgctgctt atttgcaaca aca 443

<210> 1224

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B8

<400> 1224

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ccgcctccg aagtccgaag gccagaagct tccggaagcc agccaagcc atgaacgccg 120

ccagcacgc cgccgcggcc cccgcgcctg ccgcgaccgt gcaggtgccg cgcgggcagg 180

tggatctgat cgacttcacg gactggaccg gcgtcgagt cctcaaccag gactcgtacc 240

acagcatcgt caacgcgctc aagcagagtt tgagagacga cgaggggctg tacctcgcca 300

gcgattcgga cgagcagctg ctgatctaca tccccttcat gcaggtagtc aaactgcatt 360

ccgcgctatt caaaggtccc gaggaagagg gcccacaaac agtaaaactc ttctccaaca 420

aagagcatat gggtttcagc aatgt 445

<210> 1225

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C1

<400> 1225

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tccctcctta tgctgctggc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctcctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180
atatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcg agcaagcaac 240
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gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctctgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
gctacactga accctggtgc ttatttgcag cacaacta 458

<210> 1226

<211> 257

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C10

<400> 1226

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gtcaacatca tgatcaagcc gcctctgaga tggattctag agctgttgat gctgtggcct 120
ctagaatact cacggataac atcgatccta cgcttcgaga gatcattgat cctaagactg 180
cagaggataa tgtagttatg atatcgacca atgcttgcac taggccactg accacaacat 240
ctgtattgac gcatctc 257

<210> 1227

<211> 282

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C11

<400> 1227

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cttaacacct ttagctagct tcctctatca ttgcttctac agctgttgct gccttgcctt 120
ctagaatact caccgacaac accgtccctc tgcttcgaga tatcattgat actaagactt 180
cagacgatac tatactaagc tcttgccacc tgcttgcac tagtcactga ccacaccatc 240

tggattctcg aacatgactc catctgctta aaaccatact ac 282

<210> 1228

<211> 214

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C3

<400> 1228

ggtcagtcgg gactacccgc tgagtttaag catatatata aaatagcggg aggagagtga 60

gggtaagtct gtaactgtaa cccatagctg agatgctgtc tgcaagcagc aatgccaatg 120

ccaatgccat ctggttttcg tgcaaaaaaa aaaaaaaaaa aaaaaagaaa gaaaaaaaaa 180

aaaaaaaaaa aaaaaataag aaaaaaaaaa aaaa 214

<210> 1229

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C4

<400> 1229

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cgacatcctc acccggtgag acgcgatctg ccagaagtac gacaggtacg acgtcgacaa 180

gctcaacggc gcgaacgtcg ccggcgacga cccgttcgcc cgcctctacg cgtccgtcgg 240

cgcgacatc aaccaatgag tcgattaagc gggaaacggc gaaacaagga gagaaccggg 300

ccgcgggagt ggcgcttaac gccgagat 328

<210> 1230

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C5

<400> 1230

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agtgagcgca acaaatgcgt tcattattcc acagtgtca cttgctccta gtgccattat 120
 tccacagttc ctcccaccag ttacttgaat gggcttcgaa catccagccg tgcaagccta 180
 caggctacaa ctagcgcttg cggcgagcgc cttacaacaa ccaattgcc aattgagaac 240
 aacaatcctt ggcacatgta accctacaaa ccattgcaac gcagcaacaa caacaacaac 300
 agtgtctgcc atcactgagc cacctagccg tgggtgaacc tgtcacctac ttgcaacagc 360
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 agctgcaaca gtttatgcca g 441

<210> 1231
 <211> 444
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C6

<400> 1231

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 tacaacaact tgtgctagca aaccttgctg cctactctca gcaacagcag tttcttccat 180
 tcaaccaact agctgcattg aactctgctt cttatttgca acaacaacaa ctaccattca 240
 gccagctacc tgctgcctac cccagcaat ttcttccatt caaccaactg gcagcattga 300
 actctctgc ttatttacag cagcaacaac tactaccatt cagccagcta gctgggtgtga 360
 gccctgctac cttcttgata caaccacagt tgttgccgtt ctaccagcac gctgcgccta 420
 acgctggcac cctcttacia ctgc 444

<210> 1232
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C7

<400> 1232

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 caagatatta tccctccttg cgcttcttgc gcttttttgc agcgcaacaa atgcgtccat 120

tattccacaa tgctcacttg ctctagttc cattattcca cagttcctcc caccagttac 180
 ttcaatggcc ttggaacacc cagctgtgca agcctatagg ctacaacaag cgattgcggc 240
 gagcgtctta caacaaccaa ttgcccatt gcaacaacaa tccttggcac atctaacaat 300
 acaaaccatc gcaacgcaac agcaacaaca gttcctacca gactgagcc acctagccat 360
 ggtgaaccct gtcgcctact tgcaacagca gctgcttgca tccaaccac ttgctctagc 420
 aaacgtagtt gcaaaccagc 440

<210> 1233
 <211> 315
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-C8

<400> 1233

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 tgggtacaaga atgaaggggtt tggtgaagtc ttagctgcac agcagagccc agataatcca 120
 aactgggttc aggttactgc agatgctgta aggcagtact tgtagttggt tgaggagcat 180
 aatgtgatgg aatttctaata tcttgctggc gatcacctgt accggatgga ctatgaagag 240
 ttcattcatg cacacagata aacagatgct gatattaccg taggtgccct accgatggat 300
 gaggaacgtg caact 315

<210> 1234
 <211> 472
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B11

<400> 1234

cagaaacaca ccaagcgaag cgcactagca acaacctaac aacaatggct accaagatat 60
 tatccctcct tgcgcttctt gcgctttttg cgagcgcaac aaatgcgtcc attattccac 120
 aatgctcact tgctcctagt tccattattc cacagttcct cccaccagtt acttcaatgg 180
 ccttcgaaca ccagctgtg caagcctata ggctacaaca agcgattgcg gcgagcgtct 240
 tacaacaacc aattgcccac ttgcaacaac aatccttggc acatctaaca atacaaccca 300

tcgcaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atggtgaacc 360
 ctgtcgcta cttgcaacag cagctgcttg catccaaccc acttgctcta gcaaacgtag 420
 ttgcaaacca gcaacaacaa caactgcaac agtttctgcc agcgcttagt ca 472

<210> 1235

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-H4

<400> 1235

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 tttaattcca aaaccctggg gcttggtcct gggggttctg gctttaatgg tttaatttc 120
 aatggttctt ggtacacaga acaggcgctg cagctttggt caacaacaag ccatgagcag 180
 caacatcatc cacaacaaca tcatccacaa aaacaacaac atcaaccacc accacaacat 240
 caccagcagc agcaacacca acaacaacaa gtccacatgc aaccacaaaa acatcagcaa 300
 caacaagaag ttcattgtca acaacaacaa caacaaccgc agcaccaaca acaacaacaa 360
 caacaacagc accaacaaca 380

<210> 1236

<211> 452

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-H5

<400> 1236

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 ctgttgagga aatggagtgc atgggttgct gtgtgaatgc tcctatgatt gctgtggctg 120
 actactcgaa aggctcagag ggttacacat ataactacta tgaggacctc actccaaaac 180
 gagttgttga gattgttgag atgcttagaa gaggtgaaac acccctcga ggtacacagc 240
 acccagagcg aaaaaactgt ggcctgccg gggggaacac caccttgac ggagagccga 300
 aacctnctnc atgcaaggat ctggatgcct gctaagtttg cttcggagca ttacgagcac 360

gcgcataact tggctcgtac tgtaaagtgt gcaaactgca cacagcggag gctgtgttat 420
 ttgtattctg aaagcttctt gtgtntcgtc aa 452

<210> 1237
 <211> 294
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-H6

<400> 1237

gaccaagcct tcggttttaa taccattcat caatattcat tttaattatt ttagccccaa 60
 attcaatttg gcaccttcat tatatttact tcaaaaacca cttaacttgt gcctgtgggt 120
 ctttggttca ttgcgctaga ttctaattgtg tcttgtgcac acacacgcgg gtttacatgt 180
 ggggaacaac acagacctgt gcagcagcat cattatacac aacatcatcc tccacaacaa 240
 caacatcatc caccaccacc acatcatcag cagcagcaac aacaacaaca acaa 294

<210> 1238
 <211> 477
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-H7

<400> 1238

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 ccaacaacaa caacaacagc accaacaaca acgtcaatgt gaaggccaac aacaacatca 120
 ccaacaatca caaggccatg tgcaacaaca cgaacagagc catgagcaac accaaggaca 180
 gagccatgag caacaacatc aacaacaatt ccagggtcat gacaagcagc aacaaccaca 240
 acagcctcag caatatcagc agggccagga aaaatcacia cagcaacaat gtcattgccca 300
 ggagcagcaa cagactacaa ggtgcagcta taactactat agcagtagct caaatctaaa 360
 aaattgtcat gaattcctaa ngcagcagtg cagccctttg gtaatggcct ttctccaatc 420
 acgttttgata caaccaagta gctgccaaagt attgcagcaa caaatgtgtc atgatct 477

<210> 1239
 <211> 418

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-H9

 <400> 1239

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 gggcgtggtg acaggggaag aggttgctgc caaggtgcga tggctcttgg agtccgatgg 120
 cgtgaggatg ctacggaagc gcacgctggc ggccatgcgg caggccaagg actcgctgcg 180
 tgatggcggc gagtctgagg ccacactgac cggattggtg gacgagtgga aacgcatttg 240
 acgcggtacg tggggattgg gaacgggtga cgttacgcga ctgatgaagt gccagtcata 300
 attacttttc aatcaatata tattactaat atatgcatgt atagatcatt gacagatact 360
 acctattgca acaaatgcag atgatgatgc agcttgagcg tgctcgtgcc gcaacaat 418

<210> 1240
 <211> 441
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-053-Q1-K1-A1

<400> 1240

 agcaacatag aaagcacaat agtgtacctt caatggcagc caaaatattt tgcctcctgt 60
 atgctccttg gtctttctgc aagtgtctgt acggcgacca ttttcccgca atgctcgcaa 120
 gctcctatag cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa 180
 aaccaattc ttcaacccta caggatccaa caggcaatcg caactggcat cttaccttta 240
 taacccttgt tctccaaca atcatcagcc ctattacaac agttaccgtt ggtgcattta 300
 ttggcacaga acatcagggc acaacaacta caacacctng tgctagcaaa ccttggtgcc 360
 tactttaagc aacagcagtt tcttccattc aaccactag gttcattgga ctctgcttct 420
 tatttgcagc aacaacaact a 441

<210> 1241
 <211> 282
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A10

<400> 1241

tgctgcttac ctacaacagc gacaacagct acttaatcca ctaccggtgg ctaacggata 60
ggtcgatgcc ttcttacagc agcaacaatt gctgccatac aaccagttct cttagatgaa 120
ccctgccttg ctgcgacagc aaccatcgt tggagggtgcc atctttgata tcacatatga 180
gatgtactcg atgatggcgc cctaatagcg cgatgtgcct actacaaata ctcaatatct 240
tgagtgcacat ttatctcgat acaaccaact tgctttgacg ga 282

<210> 1242

<211> 457

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-053-Q1-K1-A11

<400> 1242

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gctccttggt ctttctgcaa gtgctgttac ggcgaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
ggcacataac atcagggcac atcaactacc acaacttggt ctagcaaacc ttgctgncta 360
ctctcagcaa caacagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
tttgcaacaa caacaactac cattcagcca gctatct 457

<210> 1243

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A12

<400> 1243

ggatttgctc acaacacagg aaaagaatat ggccagatgc ttaatgctga ggttcgagat 60
cagataaata ataatgggac aaaaaatggt ttgcctagtc gaatcgagga tctttcagga 120

aaggtccagt ttttgccatg ttctcatgac tgaaattggt cgcttcagca aagatatgaa 180
acaactatta caagagaagg tttttgtcat tgctgtctta gggtatatct cctacaactt 240
cgtcattggt gcttattcct actggggccc aaaggcaggt caagagatct acaatatggc 300
gagtgcggat cttatgtttg gtggaattac tatagtgtgt ggaattgttg gaacactagc 360
atgaggtttc atccttgaca agatagggtc tactattcct aatgctttca agcttctttc 420
tggtgcgaca ttcgtagggg caatattctg 450

<210> 1244

<211> 263

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A4

<400> 1244

aattcccggc attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc 60
agccaaaata ttttgctcc ttatgctgct tggctcttct gcaagtgtg ctacggcgac 120
cattttcccg caatgctcgc aagctcctat agcttccctt cttccccgt acctctgacc 180
agcgggtgtct tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaagcaat 240
cgcagctagc atcttacctt tat 263

<210> 1245

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A6

<400> 1245

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ctgctgcgtg ccagatacga gggactacat ttctaaccta cacaccgacg acggcctcaa 120
gtcccatcga ggctcacctc gccggcaaaa cctatgtgcc tggcgactcc attactaagg 180
atgacattat agtcttcgca cgcgggtgccg tcaaactctg tcgctgagct tcctaattgcc 240
gcccgtggt acgagacccc ctgtgcgggt gcagcctcaa cattccgtgg tacggctgct 300
gttgtacatc tgctgcatg atcagctgct gcggcagctg ctcttcgcc agaagctgag 360

catcatgaat gaccttgatc tttgctccca tgaaactgac gaagacacga cggcagctg 419

<210> 1246

<211> 352

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A7

<400> 1246

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cgtgaggggt ccagatctgc agagcgagcc atcattcaat gcgtgctgca cctgcatgca 120

tgcattgcgt gtttctagtt tctacaaggc ggtgatcgat ccagctggcg attcaattgt 180

ggttgggggt ggcctgtgta ttctaccggt actaaattgt aattgttgtt tttttttacg 240

attcggttca tttcctcgtc ctctttcttc ttctctttcg gattcgtagc acagattgta 300

caaggagggg ggcagcagtt agtaataatc tatagcatat ccatttcattg tc 352

<210> 1247

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-A9

<400> 1247

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ggaggagaca aggggaaatg gggaaggag cgcaaggag cgatgcggcg gcggcggcg 120

gagaggtgga ggagaacatg gcggcgtggc tgggttgcaa gaacaccctc aagatcatgc 180

ccttcaagct cccgcccgtc ggcccttatg atgtccgct gcgcatgaaa gcagttggga 240

tttgccgag cgatgtgcac taccttaggg agatgcgcat cgcgcacttt gtggtgaagg 300

agccgatggt gatcggacac gaggcgcgg gcgtggtcta ggaggtgggc gcc 353

<210> 1248

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B1

<400> 1248

aaagtgggtgt ggaattcaca tcaaccagtg agaagcccgc tgctcgctgc aactgcaagc 60

cgtcacgggc tgagctgagg ctgtgtcgaa ctgtcgatcc atccgtattc tcagcaaaac 120

aacgccaatc aatccactcc agaggaaggg cgatggccgc cgctaggatc gccgcttgca 180

ccacctccgc ccgcaccgcc ctgccttgg cagacgaccc cgcgccgccg gacacgcttg 240

acgtgggtgcg ccggcagcgc cagctcctac gccgcgccgc cgcgctctgc ctcgacccca 300

tcgccgagga gtccgacggt ggcacgact ctgcctccga cgtccacccc ttgggtcgga 360

gccggggcca g 371

<210> 1249

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-053-Q1-K1-B10

<400> 1249

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gccgcctacc tacaacagca acaactgctt tcacttagcc cgctcgctgt ggccaatgca 120

cctacatacc tgcaacaaga attgttgcaa cagattgtac cagctctaac tcagctagct 180

gtggcaaacc ctgttgcta cttgcaacag ctgcttccat tcaaccaact aactatgtcg 240

aactctgttg cgtacctaca acagcgacaa cagttactta atccattggc agtggctaac 300

ccattggctg ctgccttcct acagcagcaa caattgctgc catacaaccg gttctctttg 360

atgaatcctg tcttgtcgag gcagcaaccc atcgttggag gtgccatctt ttagattaca 420

tatgagatgt actcgataat ggtgccct 448

<210> 1250

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-H3

<400> 1250

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ctggggccac gagtgggaga agcacggcac ctgcgagcc gacgtcttcg acgagcacgg 120
ctacttccag gccgcgtgc gcctccgcga ccagctggga gtcctcggcg cgctcacctc 180
cgccggcgtc aagcccgacg gcggctacta cacgctgagc cagatcaagg gcgccatccg 240
ccagggcacc ggcttcgagc cctacgtgga gtgcaaccgc gacgaggccg gcaacagcca 300
gctctaccag ctctacttct gcgtcgacgc cgnccggcag agcttcgtcg acttgcccgt 360
cctncccaag cgcaggccct gtggcaaacc ggatcgagtt cccggctttc taagctaact 420
cactcttcac gtcagttgct gcaatatact 450

<210> 1251

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G11

<400> 1251

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gctccgtggg ttttctgcaa gtgctgttac ggcgaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccgtagct ctcaccaacg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
tttgcaaaa caacaactac cattcagcca gcta 454

<210> 1252

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G12

<400> 1252

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ctccttggtc tttctgcaag tgctgctacg ggcaccattt tcccgcaatg ctcgcaagct 120
cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt atgtgaaaac 180
ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt acctttatca 240
cccttggttc tccaacaatc atcagcccta ttacatcagt tacctttggt gcatttattg 300
gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaact tgctgcctac 360
tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc tgcttcttat 420
ttgcaacaac aacaactac 439

<210> 1253

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G2

<400> 1253

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tcttcaacc tacaggatcc aacaggcaat cgcagctggc atcttacctt tatcacctt 120
gttcttcaa caatcatcag ccctattaca gcagttacct ttggtgcatt tattggcaca 180
aaacatcagg gcacaacaac tacaacaact tgtgctagca aaccttgctg cctactctca 240
gcaacagcag tttcttccat tcaaccaact agctgcattg aactctgctt cttatttgca 300
acaacaaca ctaccattca gccagctatc tgctgcctac cccagcaat ttcttccatt 360
caaccaactg acagcattga actctctgc ttatttacag cagcaacaac tactaccatt 420
cagccagcta gctggtgtg 439

<210> 1254

<211> 271

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G3

<400> 1254

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gcagtttgcg gctaaccctg caaccctctt acaactacaa caattgttgc cctttgtcca 120

acttgctttg acagaccag cggcctccta ccaacaacac atcattggtg gtgccctctt 180
 ttagattgct tattagtgt aattcaataa taaggtttt tggatgatgt atgtggccaa 240
 ccagaaataa gaagttacat ttccagattc t 271

<210> 1255

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G4

<400> 1255

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 gctccttggg ctctctgcaa gtgctgtac ggcgaccatt tccccacaat gtcacaagc 120
 tcctatagct tcccttcttc ccccgtaact ctcaccaacg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcaaaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgcaacaa caacaactac cattc 445

<210> 1256

<211> 468

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-G5

<400> 1256

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 atattttccc tccgtatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
 gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgagca 240
 agcaacatac ctttatcacc cttgttgttt caacaatcgc cagccctatc tttggtgcag 300
 tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360

caagtagctc tggcaaacct tttctcttac tctcagcna cacaatttct tccattcaac 420

caactgtcta cactgaaccc tgcttgctaa ttgcagcaac aactatta 468

<210> 1257

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G7

<400> 1257

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attaagaggc gtcgatcggg catgggggtgc gacgacaagt gcgggtgcgc cgtgccgtgc 120

cccgggcgga aagactgcag gtgcacgtcg gggagcgggc ggcagcgga gcacacgact 180

tgcggtgcgc gggagcactg cgagtgcagc ccgtgcacgt gtggccgggc cacgatgccg 240

tccggccgcg agaacaggag ggctaactgc tcttgcgggg cgtcctgcaa ctgcgcatcc 300

tgcgctcgcg cctgatccgt gcgcctcgcc ctctgtgctac cgcgctgcct agtggaggga 360

gttgtctagt gaggctggag acgaagcaac tagcactact tctaataaag ggcttgtgtc 420

atgctc 426

<210> 1258

<211> 449

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-G8

<400> 1258

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atgtccagca cgggagcatt gaagctacta aagccaacgc tgctggtgat gcacctggag 120

cattttttca aaagcagtgt gctaaagctg ctgatgttat taccattgac gacgatgacg 180

aggacaacag tcatcgttgt tataaagaag aacaaacagc agtagttgat cttgaagctg 240

attatgctgg ggataacat cccgtgcagc ttgaggcaaa tagtcgaggc cataaacacg 300

tgaaggtgaa ggagcgcatt tggattaca ttgatcctca gggatgatgag caagggccat 360

ttacaatgca gcatctgagc atctggtgga gcaatggctt cnttcccggc gacttcaggg 420
tctggagaac aggccaaact agtaatgac 449

<210> 1259
<211> 459
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-052-Q1-K1-G9

<400> 1259

ttttgagcat tcagaaacac accaagcgaa ggcgactagc aacgaccta caacagggggc 60
taccaagata ttagccctcc ttgcgcttat tgcccttttt gtgagcgcaa caaatgcggt 120
cattattcca caatgctcac ttgctcctag tgccattatt ccacagttcc taccaccagt 180
tacttcaatg ggcttcgaac acctagctgt gcaagccaac atgcaacaac aagcgcttgc 240
ggcgagcgtc ttacaacaac caattgcccc attgcaacaa caatccttgc cacatctaac 300
aatacaagcc atcacaacgc atcagcaaca acagttccta ccagcactga gccacctagc 360
catggtgaac cctgccgnct acttgcaaga gcagctgctt gcatccaacc cacttgcctc 420
ggcgaacgta gttgcacacc agcaacaaca acagctaca 459

<210> 1260
<211> 409
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-H1

<400> 1260

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gctacttgat catcgtttagc ctgccttttcg ctgattttca gaaggagaag gtttcatgga 120
agaacactct cacaaatggg attgttaagg tatcatgcac tagcggttggc cggatgccac 180
tcctgaaaag gcatgatcgg actttcaggt tgggtggatcc tgctcctgag cattgccccg 240
cgggagagtt tgtccgggag atcccactcc ctaccgaat ccctgaagac gccactctgg 300
aagcatactg cgatgaaaca gggacagggc tggagatcat tgtcccgaat ttccgcgttg 360
gccctgaaga acacgaggtg catgtgtcca tgaggccacc ctcgtcgtg 409

<210> 1261
 <211> 456
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-H10

 <400> 1261

 gcaacatata aagcacaata gtgtaccaac aatggcagcc aaaatatttt gcttccgtat 60
 gctccttggt ctttctgcaa gtgctgtac cgcaaccatt ttcccacaat gtcacaagc 120
 tcctatagct tcctttcttc ccccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
 acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
 ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgcttgcta 360
 ctctcagcaa cagcaagttc ttccattcaa ccaactggct gcattgaact ctgctgctta 420
 ttggaacaa caactacat tcagtcagct agctgc 456

<210> 1262
 <211> 253
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-H11

 <400> 1262

 cggcaagcaa catagaaagt cgaatccatt accaccaatt gcgctacaat ggcgatcagg 60
 atacatatcg tccttatgct gattgctctt actacatgtg ttgctaacgc gtcattgaaa 120
 actaaatgct cacaagctcc tactactggc cttgttactc catacttatc atcaattgta 180
 gcttccatgt gcgaaaacga agctatacag ccctatatgc tagacctggc catcgctgac 240
 agcaacatac tac 253

<210> 1263
 <211> 302
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-H12

<400> 1263

accgacgcgt gcggtaaaaa cctaattggat gcatgcacat cacatgcact ccaccatgca 60
aatttgagtt ctgctggcta tgtcttggtc catggtcaga gcatggagag aggactggtg 120
gattttatgc ttgtaaccgc tatgagtcag caaggcaaga aggagcgtat gatgaatctg 180
aaaggagaag agaaatggca aagaactccc ttgagagata cacacattat tatgaacgat 240
gggcagccaa tcagtcgtcg aggcaaaagg cactggggga ctttcaaagc ctacagaatg 300
ac 302

<210> 1264

<211> 415

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-H2

<400> 1264

gtcgccgacc cgcagtcggg caaggcgctg gcgacgctgc gcgggcacct ggactggtgc 60
cttcgctcg gcgtggcacc ccgacagccg cgtcctggcg acggggaacc aggacgcgac 120
gtgcccgtg tgggacgcgc gcagcctgtc ggagccgttc gccgtgctcg gggcccggat 180
cggcgccgtc cggggcctcc gcttctcccc cgacggcagg ttcttgccg cggccgaggc 240
cgccgacttc gtgcacgtgt acgacgccgc ggccgggtac gccggcgccg cgcaggaggt 300
ggacgtgttc ggngaggtcg ccggcgccgc gttcagcccc gacggcgagg cgctgttcgt 360
gagcgtcgcc gaccgtacct acggcggcct gctcgagttc cggcgccggc gggcg 415

<210> 1265

<211> 306

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-G1

<400> 1265

ctgatttgca gcagcaaata ctactgccat ttagcgagct agctgcagca agtcgtgggg 60
ccttcttgac acagcaacag ttgctgcctt tctacaagca gtttgcggt aaccccgcaa 120

ccctcttaca actacaacaa ttgttgccct ttgtccaact tgctttgaca aaccagcag 180
 cctcctacca acaacacatc attgggtggg cctctcttta gattgattat tagttgtaat 240
 tcaataataa agtttttttg atgatgtatg tggccaacca gaaataagaa gttacatttc 300
 cagatt 306

<210> 1266

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-E7

<400> 1266

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 ctaccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
 tcattattcc acagtgtca cttgtccta gtgccattat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacatcaac aacaacaaca gtttctgcca tcttgagcc 360
 acctagccgt ggtgaaccct gtcacctact tgcaacagca gctgcttgca tccaaccac 420
 ttgctctggc 430

<210> 1267

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-E8

<400> 1267

cccacgcgtc cgtgagcatt cagaaacaca ccaagcgaag cgactagca acagccgaac 60
 aacaatggct accaagatat tatccctcct tgcgcttctt gcgctttttg cgagcgcaac 120
 aaatgcgtcc attattccac aatgctcact cgctcctagt tccattattc cacagatact 180
 cccaccagtt acttcaatgg ccttcgaaca cccagctgtg caagcctata ggctacaaca 240
 agcgattacg gcgagcgtct tacaacaccc aattgcccaa ttgcaacagc aatccttggc 300

acatctaaca atacaaacca tcgcaccgca acagcaacaa cagttgctac cagcactgag 360
ccacctagcc atgggtgaacc ctgtcgcccta cttgcaacag cagttgcttg catccaaccc 420
atttgctcta gcaaacgtag ttgca 445

<210> 1268

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-E9

<400> 1268

agcatacca ctatcaaaat acatatccaa ttacactatc aacatcttat caccagtgc 60
ttccaggatt ttacccttc ttgccctcct tgctatctca ccaagctctc ctacctctac 120
tattattcca caatactcac aacaacacct ctctccattc acaacctcat tatatcaaca 180
cccaactata ctatcttaca tactacatta tatccatctt atcatgcatc ttaccctcat 240
taccattaac cctccaacag ccatataccc tattgcaaca accatactta atacacttga 300
atctccaaca aatctctaca catcaactac tacaacactt gctaccaaca atcaatc 357

<210> 1269

<211> 272

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F1

<400> 1269

ttcagccagc tagctggtgt gagccctgct accttcttga tacaaccaca gttgttggcg 60
ttctaccagc acgctgcgcc taacgctggc acctctttac aactgcaaca attgctgcca 120
ttcaaccaac ttgctttgac aaaccagca gcgttctacc aacaacccat cattggtggt 180
gccctctttt agatttctta tgagttatag ttcaataata aagttttttg tctgatgttt 240
gtggcttccc agaaataaga aagtacattt ct 272

<210> 1270

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F10

<400> 1270

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gcgacgatct tcccgcaatg ctcgcaagct cctatagctt cccttcttcc cccgtacctc 120
tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc aaccctacag gatccaacag 180
gcaatcgag ctggcatctt acctttatca cccttggttc tccaacaatc atcagcccta 240
ttacaacagt tacctttggt gcatttattg gcacaaaaca tcagggcaca acaactacaa 300
caacttggtc tagcaaacct tgctgactac tctcagcaac agcagcttct tccattcaac 360
caactaggtt cattgaactc tgcttattat ttgcaacaac aacaactacc attcagccag 420
ctacct 426

<210> 1271

<211> 458

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-F11

<400> 1271

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cctgcctctg gaaaaagacc aaactttgac cctggttattt ctgcattatt ggatccaata 120
attcaggtgt gtgagcaagc tgcagaggca cagaagtcaa aaggatcact tgcgcggcgt 180
ggtagaacaa gctctgatcc tagtggaat agcagggatt ctatatcagt tgatgctatt 240
ctgtctaaga atttatctac atcgattctg agtgccgaat cttcatccaa agtctacctc 300
atcaactgct tgctagctat tcaggagcca ttgatgggcc angaggctgc tacaagctat 360
gtaaacaacc tgcgctctat gattgaagca catatttggt tccttgctga taaagaagtt 420
gactgcattc ttaggaaatg tggactatca aataagat 458

<210> 1272

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-F12

<400> 1272

gcaaaccttg ctgcctactc tcagcaacag cagttttcttc cattcaacca actaggtgca 60
ttgaacgctg cttcttattt gcaacaacaa caactaccat tcagccagct acctgctgcc 120
tacccccagc aattttcttc attcaaccaa ctggcagcat tgaactctcc tgcttattta 180
cagcagcaac aactactacc attcagccag ctagctgggtg tgagccctgc taccttcttg 240
atacaaccac agttgttgcc gttctaccag cacgctgcgc ctaacgctgg caccctctta 300
caactgcaac aattgctgcc attcaaccaa cttgctttga canaccagc agcgttctac 360
caacacccat cattggtgtt gccctcttta gatnntctat gagttatagt tcaaataata 420
agttttttgt ctgatgttt 439

<210> 1273

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F2

<400> 1273

atcacaacga acaaaagctc tcgatctcac cgacaccgag gaagaagaga tcaatggcgt 60
ccgagcaggg agtcgtgatc gcgtgccaca gcaaggctga gtttgacgcc cacatgacca 120
aggcccagga agccggcaag ctggtggtca tcgaattcac tgccgcctgg tgcggtccat 180
gccgcgccat cgccccactg ttcgtcgaa acgccaagaa gttcactcag gtcgtcttcc 240
tgaaggtgga cgtggacgaa gtgaaggaag tcaccgcggc ctacgaggtc gaggcgatgc 300
cgaccttcca cttcgtcaag aacggcaaga cggtcgcgac catcgtgggt gccaggaagg 360
acgagctcct ggccctgatc gagaagcatg ccgcgcctgc gcctgcgact gcgtctgcct 420
aatgagatc agatcagtcg tcgccgtcaa taag 454

<210> 1274

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F3

<400> 1274

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gctcgttgcc ctgctctctc tggctctcgc tgcgagcgcc acctccacgc atacaagcgg 120
cggctgcggc tgccagccac cgccgtcggg tcatctaccg ccgccggtgc atctgccacc 180
tccggttcac ctgccacctc cgggtgcatct tccaccgccg gtccacctgc cgccgccggg 240
ccacctgcca ccgccgggtcc atgtgccgcc gtcggttcat ctgccgacgc caccatgcca 300
ctaccctact caaccgcccc ggccctcagcc tcatccccag ccacacccat gcgcgtgcca 360
acagccgcat ccaagcccgt gccagctgca gggaacctgc 400

<210> 1275

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F4

<400> 1275

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gcagcttggt ttgcacatgt tccaggactt aaggttctca caccatactc ttcagaagat 120
gctcgaggct tgctcaaagc tgctatcagg gaccctgac ctgttatttt cctggaaaat 180
gaattgcttt atggagaatc tttcccagtt tctgctgaag tgcttgattc tagtttttgc 240
ctaccgattg gcaaagctaa gatagaacgt gagggttaaag atgttaccat tactgcattc 300
tccaagatgg ttggctatgc tctccaggct gcagagatac tgtccaagga aggaatcagc 360
gctgaggtga tcaaccttcg atcaatcaga ccacttgata gagctgctat taatgcatct 420
gtc 423

<210> 1276

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F5

<400> 1276

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tttttgccct ccttgccctc cttgctcttt cagcaagcgc tgctacctcg actttttattc 120
 cacaatgctc acaacaatac ctctctccgg tgacagccgc gggatttcaa tacccaacta 180
 tacaatccta catggtacaa gaggccatcc aagcaagcat cttacggtca ttagcattaa 240
 ccctccaaca accatatgct ctattgcaac agccatcctt agtgcactctg tatctccaaa 300
 gaatcgcggc acaacaacta caacaacagt tgctaccaac aatcaatcaa gtagttgcag 360
 cgaaccttgc tgcttaccta cagcaacaac agttttcttc attcaatcaa ctagctgggg 420
 tgaaccctgc tatctacttg caggcacaac 450

<210> 1277

<211> 447

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-F6

<400> 1277

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 atggcacaac aactacaaca acttgtgcta gcaaaccttg ctgcctactc tcagcaacaa 120
 cagttttcttc cattcaacca actagctgca ttgaactctg cttcttattt gcaacaacaa 180
 caactaccat tcagccagct atctgctgcc taccgccagc aattttcttc attcaacaa 240
 ctgacagctt tgaactctcc tgcttattta cagcagcaac aactactacc attcagccag 300
 ctagctggtg tgagccctgc taccttcttg acacaaccac aattgttgcc gttctaccag 360
 cacgctgcgc ctaacgctgg caccctctta caactgcaac aattgctgcc attcaacaa 420
 ctngctttga caaacccaac agcattc 447

<210> 1278

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F7

<400> 1278

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 ggaaggaata aactcactgc cagccagtga agggggagaa gtgtactgct ccgtcgacca 120

gtgcgcgcac cgcccggcag ggtggtcat ctgctcgacg accagtggat taatcggcat 180
ggcggtcttg gccacgtcgc agctcgctgc aacgcgcgc gccctgggcg tcccggaacgc 240
gtccacgttc cgcccggcgc ccgcgcacgg cctgaggggg gcccgggcgt cggcggcgcgc 300
ggacacgctc agcatgcgga ccagcgcgcg cgcggcgccc aggcaccagc agcaggcgcg 360
ccgcggtggc aggttcccggt cgctcgctgt gtgcgccagc gcccgcatga acgtcgtc 418

<210> 1279

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F8

<400> 1279

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cagcaactcg tgctacctgt gatcaaccaa gtagctctgg caaacctttc tccctactat 120
cagcaacaac aatttcttcc attcaaccaa ctatctacac tgaaccctgc tgcttatttg 180
cagcaacaac tattaccatt cagccagcta gctactgcct actctcatca acaacaactt 240
cttccattta accaattggc cgcactgaac ctgctgctt atttgcagca gcaaataatta 300
ctaccattta gccagctagc tgcagcaagc cgtgcttctt tcttgacaca gcaacagttg 360
ctgcctttct accagcagtt tgcggctaac cccgcaacct tcttacaact acaacaattg 420
ttgccctttg tccaacttgc tttgac 446

<210> 1280

<211> 487

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-F9

<400> 1280

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acccccacct ccggcctccc agcgggaactc cgctcgcttg ctccacgacg cttatgcgct 120
cgcgttccgc tctcgccgcc cacctccggc gctgctcct cctctctccc tccggccacc 180
tcatcatcat ccgcccgcgc atggcatccg ccgcccgcgc gcaggcgag ccaggtggcg 240

ccccgctggc gaccgcggag tacgaggagg tgctggggcg gctctcctcg ctcatcacgc 300
 agaaggtgcg cgcgaaacacc gtcaaccgcg gcaaccagtg ggacctcatg gagcactacg 360
 tcaagattct ggagctggag gagtcgatcg cgcggatgaa agtgattcac gtcgcgggga 420
 ccaaggggaa gggttccaca tgcacattca ccgagtcaat cctgcgatcg tgtggcttcc 480
 atactgg 487

<210> 1281
 <211> 427
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-E6

<400> 1281

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 ggtgggcgca tgatcaagtt ggttgagtgc ttgcgaaatt ctgacgacaa tgaaggcgag 120
 cgtgatgtac atctttgtct gcttccactt gatggacaaa cggcaccaaa tctggagtca 180
 tatctgtgtt gcggcccaac tctgtccatc aaacaacttt gtcaggtcag tacttgttga 240
 aacacttgtg tccatcgta gaaatcagaa cttacagacg aatgtctctg ttagtattgt 300
 cgccagtcag acatctcaca nagatgaaga agttgagatg tatgcgctga agccttcttg 360
 tagcaagcct gtcagcacta atacatgcng tcctgacaaa gcaaggctcg caagggagga 420
 acgcctt 427

<210> 1282
 <211> 343
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D12

<400> 1282

acgccttcta tcaatgcat caatcatcat tcactttagt agtataagca ccaaataag 60
 tctgcaacag caattatcta actccaaaaa ccatgaaact ggtgcttgtg gttcttgctt 120
 tcattgcttt agtatcaagt gtttcttgta cacagacagg ctgctgcagc tgtgggtcaac 180

aacaaagcca tgagcagcaa catcatccac aacaacatca ttcacaaaaa caacaacatc 240
aaccaccacc acaacattac cagcaacagc aacaccaaca acaacaagtt cacatgcaac 300
cacaaaaaca tcagctacaa ccaggaagtt tatgttcaac aac 343

<210> 1283

<211> 167

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D2

<400> 1283

gctcgaccca cgcacccgat catacaccat acatctaacc agcttttttt caaccttcat 60
ctcctctact cacctgaccc tctatatagt ctccaatgcc tctcacttct atcattttat 120
cttacctcac aaactttctt aatcaaacat ttcacaacat tcacata 167

<210> 1284

<211> 414

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-D3

<400> 1284

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ggggccccggg gacccgctgt ccgccgcctc cgccgatccc gtggccgccc cggaggggct 120
ccgccgcgcy gtctctgaca tgcaggcggc gctcacggcc atcgagcggt gccggaagcc 180
cgtcgtcgcy gcggtgcacg gcgcctgcgt cggcgggcggc gtcgacctcg tggccgcctg 240
cgacatcagg tgctgctcca gggacgcctn ctctgtgctc aaggaggtgg acatggccat 300
cgtcgccgac ctcgggcgcy ctgcagcgcc tccgcggatc gtcggctacg gcaacgctgc 360
tgacctcgcy ctaccggac gcaagatcaa cgccatggag gccaaaggaca tggg 414

<210> 1285

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D4

<400> 1285

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gatctccaag ggaaagaagg gtggcaagaa aaagaccgtc gaccctttct ctaagaagga 120
ttggtatgac atcaaggcac cgtcggtggt cagtgtgcgc aacatcggga agactctcgt 180
atccaggaca cagggtacca ggattgcttc tgagggctctg aagcacagag tctttgaggt 240
ttgcctagct gatcttcagg gcgacgagga tcaagcttac aggaaaatca ggctccgtgc 300
tgaagatgtg cagggcagga atgtgctcac aaacttttgg ggtatgaatt ttaccactga 360
taaactgaga tccct 375

<210> 1286

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D5

<400> 1286

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caccgcgacc tgcgccgag ccacctacag cgcggcggcg gcaggggacg tcccgtccgt 120
ggcgttcgtg gtcgccagct acggcgcgct cctgcttctg ctgcgctccc tgcgcgccta 180
cgagctggcg ccgccggagg cggctgcacg caggggaagcg ctcacgcgca gggctctgggc 240
gctctgcacg ctactcagcg tgatgttcgc gtggaaggtt gcgagcgtcg tcgcgacgcc 300
gtgaccggtc gctgtcagcg tttgggccgc ggcggccgtc acatctgacg ctgggttcgt 360
tctgctgtta cgacagcagc agcgttgcca atgaacgagt gatcgggtgga tgtgtgttcc 420
gtctgtaact tgtaagct 438

<210> 1287

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D6

<400> 1287

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 cggcggcctc gcctgggcca cggacgacca ctccctccac aacgccttca gcacctacgg 180
 cgaggtcctc gagtccaaga tcatcctcga tggggagacg cagaggtccc gcggcttcgg 240
 ctctgtcacc ttctccacgg aggaggcgat gcggaacgcc atcgagggca tgaacggcaa 300
 ggagctggac ggccgcaaca tcaccgtcaa cgaggcccag tcccgcggcg gccgtggagg 360
 cggcggcggc ggcggttacg gtggtggccg tggaggcggc tgctacggcg gtggcgggcg 420
 ccgtgatggc 430

<210> 1288

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D7

<400> 1288

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 gctccttggc ctttctgcaa gtgctgtac ggcgaccatt ttcccgaat gctcgcaagc 120
 tcctatagct acccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caacctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag gtacctttgg tgcatttatt 300
 ggcacaaaac atcaaggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctaa 420
 tttgcaacaa caacaactac cattc 445

<210> 1289

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D8

<400> 1289

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agagatgacg atcgtgcaag tgatgtggtg ccaaccacaa gatgcagttg gtggacgac 180
tgaagagatg atggacttat ccagtggatg ctgcgaagc gactaccac cccagcaaac 240
actatctaag tgtaaaaata aaggcaagcc cgggttttat gcataaccgt tatatatgct 300
atcttactgc acttaatggt ttaggtgtg taatgtgcac ttaagttgta ataccgaatt 360
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<210> 1290

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D9

<400> 1290

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atcaagcgac cggctaacag aagacatggc gcaatagctg gcagggtcga tggcggcagc 120
cgcgagtcgg cagccgcggc cgtgggttcc acggtggtag aggccagaga ctggacagag 180
gaggcagagg ttgcaggacc cccagaagcg gccgttacgg cggtcacaag catggccgct 240
atggtcgcat gaacaccggc agccatgacg tcgtggtcta ccacaagctc gaccatgtct 300
tcctctg 307

<210> 1291

<211> 327

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-E1

<400> 1291

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gcttatggga gactgcatg aatgtcgaat ctagactccc aacagagcac acagagaggc 120
taacactggt actgcactat atacacatta ttctcttggt cataagccta cgtagtacaa 180
gccccatacc ctaaatactg accgagctcg acagaaagag agaaaaggta ctagacgaat 240
acaacctgca gatcacatcg atcaacacaa tctatgtact aacaaaggca atcatggacg 300
agcgaatata ccacgatggg caaaaga 327

<210> 1292
 <211> 221
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-E10

<400> 1292

 agcgaaaaac ggggcgaccg agcctgctcg gcctcggttt ccggttcctt tcccttcgtg 60
 caataaccgg tgcccttacc cccaactacn cgcgcccccg ggggcccccg ccgggggtcct 120
 tcttctctcg ctgctcgga accagaggcc tcgcgacgtc tccgctgcg gntcgcgcac 180
 tgctagggtt cttcgggggc gcggccatgt cgtcggcggc g 221

<210> 1293
 <211> 459
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-E11

<400> 1293

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 tcgtgtcctt cttatgctcc ttgctcttct tgcattgtgt gctaacgcga caattttccc 120
 tcaatgctca caagctccta tagcttcctt tcttccccca taccttccat caatgatagc 180
 ttcagtatgt gaaaaccag ctcttcaacc ctataggctc caacaagcaa tcgcagcaag 240
 caacatacct ttatcacctt tgtttcaaca atcgccagcc ctatctttgg tgcagtcatt 300
 ggtacaaacc atcaaggcac agcagctgca gcaactcgtg ctacctgtga tcaaccaagt 360
 agctctggca aacctttctc cctactatca gcaacaacaa tttcttccat tcaaccaact 420
 atctacactg aaccctgctg cttatttgca gcaacaact 459

<210> 1294
 <211> 465
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-052-Q1-K1-E12

<400> 1294

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attatcgcgt gatacttgga cctaataata catgcatggt cataataaag tgttgctaac 120
tcgacaattt tccctcaatg ctcacaagct cctatagctt cccttcttcc cccatacctt 180
ccatcaatga tagcttcagt atgtgaaaac ccagctcttc aaccctatag gctccaacaa 240
gcaatcgcag caagcaacat acctttatca cccttgtttc aacaatcgcc agccctatct 300
ttggtgcagt cattggtaca aaccatcaaa gcacagcagc tgcagcaact cgtgctacct 360
gtgatcaacc aagtagctct ggcaaaccct tctccctact atcagcaaca acaatttctt 420
ccattcaacc aactatctac actgaaccct tctgcttatt tgcag 465

<210> 1295

<211> 449

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-E3

<400> 1295

gggagaaggg aaagcttgga agagttagag aggagtatga gaagatgatg gagaccaggg 60
ccgaatggga aactgagaag aagggtgaagg cgagacgcca aaaagagcag aaagagggtt 120
taacactgct actgcactat taattcatta tttccttcgt cgaaagcatc cgtagtacaa 180
gccccaaacc ctaaaaaatg accgagctgg acagaaagag agaaaaggca ctagaagaat 240
acaacctgga gatgacaagg atcagcaaaa tctctggagg agcaagggca atggcggagg 300
agcgaaaata caacgatggg aaaaagatca gagagaaagc gcgcaagatg cgatccacag 360
gaaagcctna ccgcacgtgt gcttgctttt gagaacagct gcatacgctg aaatttgaac 420
caaaaccaa tgaaggacgt cattttgga 449

<210> 1296

<211> 336

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-E4

<400> 1296

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatattt gcctcctgat 60
gctccttggt ctttctgcaa gtgctgtac ggcgaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaact 336

<210> 1297

<211> 448

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-E5

<400> 1297

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ttagccctcc ttgcgcttct tgcccttttt gtgagcgcaa caaatgcgtt cattattcca 120
caatgctcac ttgctcctag tgccattatt ccacagttcc tcccaccagt tacttcaatg 180
ggcttcgaac acctagctgt gcaagccaac atgcaacaac aagcgcttgc ggcgagcgtc 240
ttacaacaac caattgcccc attgcaacaa caatccttgc cacatctaac aatacaagcc 300
atcacaacgc aacagcaaca acagttccta ccagcactga gccacctagc catggtgaac 360
cctgccgnct acttgcaaga gcagctgctt gcatccaacc cacttgctct ggcgaaacgta 420
gttgcaaacc agcaacaaca acagctac 448

<210> 1298

<211> 463

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D11

<400> 1298

cccgtgccag cagttcggat cctgcggcgt cggcagcgtc ggcagcccgt tcctgggcca 60
gtgctgcca gttcctgagg caccagtgc gcccggcggc gacgccctac ggctcgccac 120

agtgccaggc gctgcagcag cagtgtgtgcc accagatcag gcaggtggag ccgctgcacc 180
 ggtaccaggc gacatacggc gtggctcctgc agtccttcct gcagcagcag ccgcagggcg 240
 agctcgcggc gctgatggcg gcccaggtag cgcagcagct gacggcgatg tgcggctctgc 300
 agctgcagca gccagggtccc tgcccttgca acgcagctgc cggcgggtgtc tactactgag 360
 gaaactatgt actgtagtaa taatgtaatg gagccgctga ctagctacct atagggctat 420
 agctagttca ctcgtttagc ggcgatgagt aacggagtgt cac 463

<210> 1299

<211> 457

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B9

<400> 1299

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 tatgtgtctt ggtctttctg caagtgtgtc tacggcgacc attttaccac aatgttcaca 120
 agctcctata gctatccttc ttgcaccgta cctctcacca acgggtgtctt cggtatgtga 180
 aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
 atcacccttg ttcttacaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
 attggcacaa aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
 ctactcttag caacagcagt ttcttgcatt caaccaacta gctgcattga actctgctta 420
 ttatttgcaa caactgcaac taccattcag ccagcta 457

<210> 1300

<211> 358

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C1

<400> 1300

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 atattttgcc tggttatgct ccttggtatt tctgcaagtg ctgctacggc gaccattttc 120
 ccgcaatgct cacaagctcc tatagcttcc cttcttcccc cgtacctctc accagcggcg 180

tcttcggtat gtgaaaaccc aattcttcaa ccttacagga tccaacaggc aatcgcagct 240
ggcatcttac ctttatcacc cttgttcttc caacaatcat cagccctatt acagcagtta 300
cctttggtgc atttattggc acaaaacatc agggcacaac aactacaaca acttgggc 358

<210> 1301

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C10

<400> 1301

caagcaacat agaaagtgga atccagtagc aacaatagag caacaatggc gaccaagata 60
ctttccgtcc ttatgctcct tgctctttct gcatgtgttg ctaacgcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aatgatagct 180
tcagtatgtg aaaaccagc tcttcaaccc tataggctcc aacaagcaat cgcagcaagc 240
aacatacctt tatcaccctt gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300
gtacaaacca tcaaagcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttcttc ctactatcag caacaacaat ttcttccatt tcaccaacta 420
tctacactga accctgctgc taatttgcag caacaact 458

<210> 1302

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C11

<400> 1302

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cgtcgagtga agcctttgtg gtccgtgacg atgtcgagga gagccgcagc gttgttgctc 120
gcgtgcctcg tcgccgtgac agcggcggcg ctggcggacg gcgcgctgct cccgtggttc 180
ggcgacggcc ggcgcgggct cgacgaggca gcggtgaccg acgtgggcct tctggcggcc 240
gacctgttcc ggatcctgga gcacgtcccc ttcggcttcg accgggacga cgtggccatg 300
gtctccatgg cgcgcgtgga ctggcgcgag acccccgcag cgcacgagat cgtggtcgac 360

gtgccccgga tgcgcatgga ggacctcagg atcgaggtcg aggacaacag ggtgctgcgc 420
gtcagcggcg agcggcgg 438

<210> 1303
<211> 217
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C12

<400> 1303

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tgtgcgttga ggatcaagac tatatgggca gaataaaaaa gttgcaagaa tacttggaga 120
aggcaaaact tatactggtg aggagtatat cgataatgca tctcaatcct ctctgcattg 180
taaactccta cattgaagtt agacaaaagt ctcatct 217

<210> 1304
<211> 354
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C2

<400> 1304

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atTTTTTccc tcttgcctt ccttgctctt tcagcaagcg ctgctacctc tactattatt 120
ccacaatgct cacaacaata cctctctccg gtgacagccg cgggatttca acaccaact 180
atacaatcct acatgctaca tgaggccatc gtagcaagca tcttacggtc attagcatta 240
accctccaac agccatatgc cctattgcaa caaccatcct tagtgcattc gtatctccaa 300
agaatcgga cacaacaact acaacaacag ttgctaccaa caatcaatca agta 354

<210> 1305
<211> 450
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C3

<400> 1305

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 tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc 120
 ctatagcttc ctttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc 180
 caattcttca accctacagg atccaacagg caatcacagc tggcatctta cctttatcac 240
 ccttgttcct ccaacaatca tcagccctat tacatcagtt acctttgggtg catttattgg 300
 cacaaaacat cagggcacaa caactacaac aacttgtgct agcaaacctt gctgcctact 360
 ctcagcaaca gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt 420
 tgcaacaaca acaactacca ttcagccagc 450

<210> 1306

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C4

<400> 1306

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 ctttatcacc cttgttgttt caacaatcgc cagccctatc tttgggtgcag tcattggtac 120
 aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac caagtagctc 180
 tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 240
 cactgaaccc tgctgcttat ttgcagcaac aactattacc attcagccag ctagctactg 300
 cctactctca gcaacaacaa cttcttccat ttaaccaatt ggccgcactg aaccccgctg 360
 cttatttgca gcagcaaata ctactaccat ttaaccagct agctgcagc 409

<210> 1307

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C5

<400> 1307

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 gtcgagttcc tgaggcacca gtgcagcccg ggggcgacgc cctacggctc gccacagtgc 120

caggcgctgc agcagcagtg ctgccaccag atcaggcagg tggagccgct gcaccgggtac 180
caggcgacat acggtgtggt cctgcagtc ttcctgcagc agcagccgca gggcgagctc 240
gcggcgctga tggcgggcca ggtagcgcag cagctgacgg cgatgtgcgg cctgcagctg 300
cagcagccag gtccctgccc ttgcaacgca gcttgccgcg gtgtctacta ctgaggaaac 360
tatgtactgt agtaataatg taatggagcc gctgactagc tacctagctc gctagtttac 420
tcatttagcg gcgatgagta acgtagtg 448

<210> 1308

<211> 399

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-C6

<400> 1308

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accaagaaat ccacgagag gccgtcgaca ggggaattaa tggcgtcgct gtctagcagc 120
agccaccgcc gcctcatcct cgcagccgcc gtctgtctct ccgtgctcgc ggctgccagc 180
gccagcgccg ggacctcctg cgtgccgggg tgggccatcc cgcacaaccc gctcccagc 240
tgccgctggt acgtgaccag ccggacctgc ggcacggggc cgcgcctccc gtggccggag 300
ctgaagagga gatgctgccg ggagctggcg gacatccccg cgtactgccg gtgcacggcg 360
ctgagcatcc tcatggacgg cgcgatcccc ncgggcccc 399

<210> 1309

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-C7

<400> 1309

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aggtttgtgt tgtatctgaa ggaagtgaag tttattgata aatgtagcat gccatataca 120
ttgcatgact catttgcata tgaagttttg tcgtgacctt tggccgacc gtaccgggtac 180

aacttagcat cgtacgttgc ccgagaaggg gtacgatgcg gcttcatacc cttagaggta 240
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gatgtggttt tataccccca gaggtatgaa gatagagtac ctacacattg cattcctatg 360
catacattga agtgatatatt gcaggtattg ttgacgcang gaagtgttat agaacctatt 420
gtggttggttc gaggaaatga gatggtgctt 450

<210> 1310

<211> 304

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-C8

<400> 1310

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tgggggttatt gttaatctgg tgccattgta aggacatatg agtaggggtt gttttgtgga 120
tcgcaagttt ctcttctgct actgttgctg ctacctttgc tgggtgttatt gctaggggtg 180
aatacttaag ttaactatgc gctgacagtc tggactagca gtgttatgtg cgctgctgga 240
ccttgccgcgc gatgctgtgg ccgattttgt tcgttaatgt caagaattgt gttacagtgc 300
gtgt 304

<210> 1311

<211> 461

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-C9

<400> 1311

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gcctggaggc cagacaattt gttgcaggtc gatgctcgtg ctggtcgccg aacaaagcat 120
gcaggggtag ccatgtccac cggcccgaag gcacgcaggc ccagccgggg atacatgcaa 180
tgaggcaacg cgcttgaaag gctttccagt ttggtcgtgc atgtaattgg cagtgtctga 240
tgcttaaacc accgtgagca gacgtctgga taattggagg ctagcaccgc gtctgctgct 300
gctcagtggg gtacctgggt tcatggtgcc ctagggtga gctgcaagac gtgaagacga 360

cggtgggata acgcgaggaa aagaaaaatc ttgggccttc ttgcngcgtg agcttgtcgt 420
ggcaggaggg aaagcacatg tcaagatgca ctagcatgac t 461

<210> 1312
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D1

<400> 1312

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cctccatctc ctgcgcgtg cctctcggtt gtatcagttt atcttgctc aggagctttg 120
ttaattaaga atttgacatc attggcatat ggcgtcccag aagagttgtc ttctgatcac 180
tttctccac gagattgtag atggggtgcc tctgtctgtt tcatcaaact gccttactgt 240
aaaagctttg aaatatgaac ctgctggtta ttcgttccat gctgcgga tgaagctgct 300
tggtcttgcg gagcatgaag atatagaaac tgatgatcac agcgtttcat cggatgacaa 360
aagccaagat tttaatactg cttctgatac ctttagcagc aaaggggaag aagaagtcac 420
ctggcagtcac acagc 435

<210> 1313
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-D10

<400> 1313

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agttgcaaac catggacatg gctttggcgt ctaaagcctc ccctccgcca tggaatgcc 120
ccgccgccga gcagccaatt ccaaagcgtg acaaagccgc tgcaaagat tcaacatacc 180
tcaatcctca agctcatgat agtggtcttg gaatcattct gggagggtgt gctgggacta 240
gattgtaccc cttgacaaag aagcgtgcc agcctgcagt gccattgggt gccactata 300
gactgattga tattcctgtc agcaattgtc tcaacagcaa catatccaag atctatgtgc 360
taacgcaatt taactctgct tcctcaacc gtcacctctc aagagcctac gggagcaaca 420

ttggagggta caagaatga

439

<210> 1314

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B8

<400> 1314

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ggtacttaac tacacacgca agcaattagt tcatgcgctt attagggttg gccactggcc 120
accactacac tacattacac tagcacaagc aagcagctac acatacttgt ccatatcaca 180
taaacgaaac agcatatata agaagatgtc ccaacatctt tgcaccacgc gcgagatcag 240
gggccctgca ggccgaactc ttcagggcgc ggccacgttc tccttggcga gcggcgcgat 300
ctcctcgctt tegacccctg gctcgccgcc ggcgaccccg aggctgagca gcacgttctc 360
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<210> 1315

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A6

<400> 1315

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accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac aaatgcgttc 120
attattccac agtgctcact tgctcctagt gccattatc cacagttcct cccaccagtt 180
acttcaatgg gcttcgaaca tccagccgtg caagcctaca tgctacaact agcgcttgca 240
gcgagcgctt tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc 300
ctacaaacca ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac 360
ctagcccgtg tgaaccctgt c 381

<210> 1316

<211> 445

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-A7

<400> 1316

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ctacacaatg tattcttacc tcagatgctt gtcctgaaac tcttcattct caaacacagt  120
cctctaggaa aaattatgct gatgcaaacc gtgtatctgc tatcattttg ggcggaggca  180
ctggatctca gctctttcct ctgacaagca caagagctac gcctgctgta cctgttggag  240
gatgttacag gcttattgat atccctatga gtaactgctt caacagtggg ataaataaga  300
tatttgtgat gagtcagttc aattctactt cgcttaaccg ccatattcat cgtacatacc  360
ttgaaggcgg gatcaactnt gctgatggat ctgtacaggt attagcggct acacaaatgc  420
ctgaagagcc agctggatgg ttcca                                     445
  
```

<210> 1317
 <211> 433
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-052-Q1-K1-A8

<400> 1317

```

tgcagccctt tggtaatgcc ttttctccaa tcacgtttga tacaaccaag tagctggcag   60
gtattgcagc aacaatgttg tcatgatctt aggcagattg agccacaata cattcaccaa  120
gcaatctaca acatggttca atccataatc caggaggagc aacaacaaca accatgtgag  180
ttatgtggat ctcaacaagc tactcaaagt gcggtggcaa tcttgacagc agcacaatac  240
ctaccatcaa tgtgcggtt gtaccactca tactaccaa ataatccatg cagcagcaat  300
gacattagtg gtgtttgcaa ttgaagaatg tgtctaccta gccgttatac tcctataacg  360
gtgttaagca ataaagtacc atacattatg atgtttgtac tatgatattt gaataagaat  420
actaattgta att                                             433
  
```

<210> 1318
 <211> 471
 <212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-A9

<400> 1318

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gccacgcgtn cgcagaaaca caccaagcga aacacattag caacaaccta acaacagtgg 60
ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc cttccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
ccatggtgaa ccctgcgcnc tacttgcaac agcangtgct tgcacaaac ccacttgctc 420
tggcaaacgt agttgcaaac cagccacaac aacagctgca acagtttctg c 471
```

<210> 1319
 <211> 443
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B1

<400> 1319

```
cagcaagcat cttacggtcg ttagcattga ccgtccaaca accatatgcc ctattgcgac 60
aaccatcctt agtgaatctg tatctccaaa gaatcacagc acaacaacta caacaacggt 120
tgcttccaac aattaatcaa gtagttgcag cgaaccttgc tgcttacctt cagcaacaac 180
aattttcttc attcaatcaa ctagctgggg tgaaccttgc tgcttacttg caggcacaac 240
agctactacc attcaaccaa cttgtcggga gccctgctgc catcttattg cagcaacagt 300
tgctgccatt ccgtctacaa gttgttgcaa acattgctgc tttcttgcaa caacaacaat 360
tgctgccatt ttaccacag gttgtgggaa acattaacgc cttcttgcaa caacaacaat 420
tgctgccatt ctaccacag gat 443
```

<210> 1320
 <211> 454
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-B10

<400> 1320

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cagccctatt acatcagtta cctttggtgc atttattggc aaaaaacatc agggcagaac   60
aactacgaac aacttgtgct agcaaaccct gctgcctact ctcagcaaca gcagtttctt  120
ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca acaactacca  180
ttcagccagc tacctgctgc ctacccccag caatttcttc cattcaacca actggcagca  240
ttgaactctc ctgcttattt acagcagcaa caactactac cattcagcca gctagctggt  300
gtgagccctg ctaccttctt gatacaacca cagttgttgc cgttctacca gcacgctgcg  360
cctaacgctg gcacctctt acaactgcaa caattgctgc cattcaacca acttgctntg  420
aaaaaccag cagcgttcta ccaacaaccc atca                                454
```

<210> 1321
 <211> 455
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-052-Q1-K1-B12

<400> 1321

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gcaattagct catcgactcc agattggaga actcgacacc atgaaggtgc tgatcgggtgc   60
ccttgccttc ctggcgctcg ctgcgagcgc cgctccagt acaagcggcg gctgtggctg  120
ccagacacca ccgtttcatc taccgcctcc gttctatatg ccgcctccgt tctatctgcc  180
gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg  240
ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt  300
cgagttcctg aggcaccagt gcagcccggc ggcgacgcc tacggctcgc cacagtgcc  360
ggcgctgcag cagcagtgtc gccaccagat caggcaggtg gagccgctgc accggtacca  420
ggcgacatac ggtgtgggcc tgcagtcctt nctgc                                455
```

<210> 1322
 <211> 260
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B2

<400> 1322

cggattctaa tcttggacgg gacaatagag ctgcatcact aggagacaag atattttggc 60
tccttatgct cctctggctg gatctggcaa tgctaaatac agcaacgcct catacgcgca 120
gcgatcagaa agctgcacac ttgtcgagct tgttgacgtc tggacgaatg acgcccaca 180
gtcatgctgt atgggtcaaaa ccaccatgga acactgctac tggatacgac tcgctaata 240
catctggcat cttaccttta 260

<210> 1323

<211> 441

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-B3

<400> 1323

ctggtgcct tgcattggct ggggctgaag cctactgcaa atactataac ttgaaaggag 60
aaactgtggt tgcagataac tagtggggca aatatgaact ttgatcgact tagactagta 120
accgagctag ctgatgttgg ccgaaaacgg gaagcagtgt tagctacatt tctgccagag 180
cagcagggaa gcttcaaaaa attcacagaa ttggttggca ggatgaatat tactgaattc 240
aaatacagat acaattctaa tgcaaaagat gcccttggtc tttacagtgt tggcatctac 300
actgacaatg agcttggagc aatgatggat cgcatggaat ctgcgaaact gaggactgtt 360
aaccttactg acaatgattt ggcaaaagac caaccttaga tactntattg gaggaagatc 420
agaaataaaa gatgaactgg t 441

<210> 1324

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B5

<400> 1324

gaaagcacia tagtgtacca acaatggcag ccaaaatatt ttgcttcctt atgctccttg 60

gtctttctgc aagtgttgc accgcaacca ttttccaca atgctcaca gtcctatag 120
 cttcccttct tccccatac ctctcaccag cgggtgtctt aatgtgtgaa accccaattg 180
 ttcaacccta caggatccaa caggcaatcg caacaggcat cttaccatta tcacccttgt 240
 tcctccaaca accgtcagcc ctattacagc agttacctt ggtccatttg gtggcacaaa 300
 acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgca tactctcagc 360
 aacatcagtt tcttccattc aaccaactgg ctgcattgaa ctctgctgct tatttgcaac 420
 aacaattacc attc 434

<210> 1325

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-B6

<400> 1325

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 tcaagtatgg gtgcaaagga ggttacaagt ggaggacac aaagaaggca aaccctaaca 120
 tccttgtcgg agcaatgggtg gctggccccg acaggcgcga tggctacaaa gatgtccgca 180
 cgaactacaa ctacacggag cctactctcg cagcgaatgc tgggtctggtt gcagcgtga 240
 tctctatata cgatatcaaa accggacggt tcggcatcga taagaacacc atcttctctg 300
 cgattcctcc gatgttccca acaccncgc cgccgccatc agcatggaaa ccatagagaa 360
 gcaatacatc tgaatgtttt ccaaagcatc gaacggggaa gtggagcaaa cgtgcgatca 420
 tttggtac 428

<210> 1326

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-B7

<400> 1326

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 cgaccaagat attttccctc cttatgctcc ttgctcttct tacatgtggt gctaacgcga 120

caattttccc tcaatgtctca caagctccta tagcttccct tcttccccca taccttccat 180
 caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240
 tcgcagcaag caacatacct ttatcgccct tgttgtttca acaatcacca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc gtgctacctg 360
 tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc 420
 cattcaacca actgtctaca ctgaaccctg c 451

<210> 1327

<211> 460

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A5

<400> 1327

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 gcgagcgagg cctccagtac aagcggcggc tgtggctgcc agacaccacc gtttcatcta 120
 ccgcctccgt tctatatgcc gctccggtt tatctgccgc cgcagcagca gccgcagcca 180
 tggcaatacc ccaactcaacc accgcagcta agcccggtgcc agcagttcgg atcctgcggc 240
 gtccggcagcg tcggcagccc gttcctgggc cagtgcgtcg agttcctgag gcaccagtgc 300
 agcccggggg cgacgcccta cggctcgcca cagtgccagg cgtgcagca gcagtgtgc 360
 caccagatca ggcaggtgga gccgctgcac cggtaccagg cgacatacgg tgtggctcctg 420
 cagtccttcc tgcagcagca gccgcagggc gagctcgcg 460

<210> 1328

<211> 51

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-H10

<400> 1328

tcttgcgcgt acgcgtacac agccccgatc cgaatcgctc tctcgcgag c 51

<210> 1329

<211> 417

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-051-Q1-K1-H11

 <400> 1329

 cggacgcgtg ggtttaagca ttcagcaaca caccatgcga accgcactac caacgaggta 60
 acaccaatgg ctacatgat attactcctt gttgcgctag ttgccctttc agtgaccgca 120
 acaaatgcat acattatact acagtgtcga ctcgctacta gtgacattat tccacagttc 180
 cttccaccag tcaactaact gggcttcgaa catgcatacg tgctagccta cacgctacaa 240
 ctagecgttg cagagagcgc cttacaacaa ccaattgacc aattgcaaca acaattcttg 300
 gtacatataa ccgtacagac cattgcaccg caacaacagc aactgcaaca gcttatgcc 360
 ttactgagcc agctagccgt ggtgaaccct gtcaactact tgcaacaata gctgctt 417

<210> 1330
 <211> 415
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-051-Q1-K1-H12

 <400> 1330

 agaccattag ctttatctac tccagagcgc agaagaacct gatcgacacc atgagggggg 60
 tgctcggttg cctcgctctc ctggctctcg ctgcgagcgc cacctccacg catacaaacc 120
 ggggcttcg cttgcaacca acggccgccg gtcatttaac ggccgccgtg ccttttgcca 180
 ctccgggtta acctgccact tccggggcat ttccaaccgc cgggccacct gccgccgccg 240
 gtccacctgc caccgccggt ccatgtgccg ccgccggttc atctgccgcc gccaccatgc 300
 cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacacct atgcccggtgc 360
 caacagccgc atccaagccc gtgccagctg caaggaacct gcggcggttg cagca 415

<210> 1331
 <211> 362
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-051-Q1-K1-H2

 <400> 1331

gggtaccttc ttcagcatca tggcatgatc ttaaggacca tatgcggcga gctggggatg 60
gctgtttcac tgatgtgtat cgtgaggctg gagcaactat tggaatagct gattatacta 120
actatgaaga tatgaaacac gcgataagga agctagatga ttctgagttc cgtaatgctt 180
tttcaaggac atatgtccgg gtgagggagt atgatgctag gcgcagccgt tctcgctcca 240
taggcagaaa ccgctctaag tcaagaagca gaagccacag ccattcgtac tcaagaagca 300
gaagccgcag ttatagcaag agcacgagcc caagatctag atctgcttca gagtcaaaat 360
ca 362

<210> 1332

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-H3

<400> 1332

attcctctga gctttgtagc ttctgttggc actagagtac atggattagc ttgttgggtt 60
gatgtattgt ttaatgggag cactgtgcaa aggtggctta ccaactgctcc aggatcccct 120
acaactcact ggtaccaact acgatgtgtg ctttcacagc cattgtatgt catggccggc 180
caagaaataa ctggccatct tcgtctcgta gcccatagtg ctcaaagcta cacaatatac 240
ttgacaatgt cagctaaaat gtgggggtgtg ggtgcggagc aaggcggtat cctacagaca 300
tctactggga aacttgaact gaaggagcca tactacaggt tgtctcagcc acaatcatgc 360
acgttgccac aagatcagca acagcagca 389

<210> 1333

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-H4

<400> 1333

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caggagagaga cgtaaagccg ccgcttcgtg cgcgtcgacg tcacctcgtc gacggggccc 120

gtctcgccgc ggggtccctt agagctccct tccgtcgccg gactgggagg tgcgccgacg 180
gatcgggaag cgacgacctg aggggactgg ctgggatggc cgggaagaag cgcaaggcgg 240
aggcggcacg cctggaggag acggaccggg cgctctacgg ggccttccgg ggcgccgaca 300
actcgctctc gcagctctac acgctcgga tgggcgcgca aaaagcctnc ttccacgccg 360
gcgaacgtca cgccatggaa aaactttatg aatggatcct gaggcagcac gaaaaatggt 420
ttga 424

<210> 1334

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-H6

<400> 1334

cgaagatcat tgaagttgac aacagtgtga gagaggatcg tgctctgctg agtgggtcac 60
aaaagttgct tggatcctg attgctattg ggggaagctga ggcataatgtc ctgtctggaa 120
tgtatggcag tgtaagccaa cttggaacag ggaatgctat cctcattata cttcagcttt 180
tctttgctgg catcattgtc atctgtctgg atgaacttct ccagaaaggt tatggcttgg 240
gatctggcat ttctctgttc attgctacca atatatgcca gaatatcatc tggaaggcat 300
ttagcccccac aaccatgaac agtgggtcgtg gtgctgaatt tgaaggggct gtcattgcac 360
tgtttcatct gttgattact agaaccgat aagtccgtgc tcttcgtgag gctttcta 418

<210> 1335

<211> 453

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-H8

<400> 1335

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ttttgcctgc ttaggtcctt tggctcttct gcaagtgtg ctacggcgac cattttccca 120
caatgctcac aagctcctat agcttccctt cttccccgt acctctcacc aacggtgtct 180
tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240

atctttacctt tatcaccett gtctctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca naacatcaag gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
 aactctgctt cttattngca acancaaaaa cta 453

<210> 1336

<211> 367

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A1

<400> 1336

cgacgggtttt gtgtggacaa tcgatagcac cgctactggg aggtttgtga ttgagataga 60
 gtttcttgac ctgaaggctg ctgatccgtc tggcggggag ccggcctcga tttgggcctc 120
 ccgccaggtc aagcagtgtc cggacagcac ggccctgtcg tccctggctc ggatgctgca 180
 cgaggacgtc ctcaccgaca tcaccatcaa cgcgggcggac ggcagcgtgg gcgcgcaccg 240
 cgcggtcctg gcgacgcggg cgccggtgtt ccggagcatg ttctcgcacg acctgagggg 300
 gaaggagctc tccaccgtgg acatcaccga catgtccctg gacgcgtgcc gcgccttctc 360
 agctaca 367

<210> 1337

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A10

<400> 1337

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 cggatatcatc gctcctttgt tgcaactgct tcaaacagca gagtttgata tcaagaagga 120
 ggctgcttgg gccatctcaa atgctacctc tgggtggttct catgagcaaa tcaagtactt 180
 ggtgtctgag ggctgcatca agccattgtg tgaccttctt gtctgccctg atccgagaat 240
 tgtaacagtt tgtctggagg gtcttgagaa tattcttaaa gtatggcagc atgacaagac 300
 catgggtgca acaggtgaca ctaacgtctt agctcagatg atcgatgaag cggaaggcct 360

ggaaaagatc gagaacctac agagccacga taacaatgaa atctatgaaa aggctgtgaa 420
gcttcttgag acatactgga t 441

<210> 1338

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A11

<400> 1338

tgacacctgc gggtcacctg ccacctgagg tgcatctccc accgccggtc cacctgccga 60
cgccgggtcca cgtgccaccg cgggtccatg tgccgccgcc gggtcatctg ccgccgccac 120
catgccacta ccctactcaa ccgccccggc ctcagcctca tccccagcca caccatgcc 180
cgtgccaaaca gccgcattcca agcccggtgc agctgcaggg aacctgcggc gttggcagca 240
ccccgactct gggccagtgc gtcgagtttc tgaggcatca gtgcagcccg acggcgacgc 300
cctactgctc gcctcagtgc cagtcgatgc ggcagcagtg ttgccagcag ctcatgcagg 360
tggagccgca gcaccggtac caggcgatct tcggctaggt cctccagtc atcctgcagc 420
agcag 425

<210> 1339

<211> 459

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A12

<400> 1339

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aagaccaggt caaccactta gcctagcttt agctccacca atgcttataa aagttagaaa 120
tatacagctc attgatttat gtatccatgc caaaaaaat ttgtaactaa aaatataatt 180
atacaagggt cgccacacca tcatcatgtg ccacggtatg aacagaaaaa taatatacaa 240
tggataaaaag caccaaacgt tatggtcaaa tgaacttaac caaaagcagg cataagtgtt 300
tggatgcaaa gagaaggatt agagaaatgg tatatcctat ttttctgata ttccaatact 360
ctcgaaaagg ttgaatatcc aaacttccca cttgctttta ctatttcagc attattgcaa 420

actaaggctg ccaaacttaa aagactttctg atctcacat

459

<210> 1340

<211> 454

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-052-Q1-K1-A2

<400> 1340

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aagcaacata cttttatcgc ctttggtgtt tcaacaatca ccagccctat ctttggtgca 120

gtcattggta caaaccatca gggcacaaca gctgcagcaa ctctgtctac ctgtgatcaa 180

ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattcaa 240

ccaactgtct aactgaacc ctgctgttta tttgcagcaa caactattac catttagcca 300

gctagctact gctactctc agcaacaaca acttcttcca tttaaccaat tggccgcact 360

gaaccccgct gcttatttgc agcagcaaat actactgcca tttagcgagc tagctgcagc 420

aagtcgtgct tnccttctga cacagcaaca gttg 454

<210> 1341

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-052-Q1-K1-A3

<400> 1341

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gagccaagat ttttttccct ccttgccctc cttgctcttt cagcaagcgc tgctacctct 120

actattattc cacaatgctc acaacaatac ctctctccgg tgacagccgc gggatttcaa 180

cacccaacta tacaatccta catgctacat gaggccatcg tagcaagcat cttacgggtca 240

ttagcattaa cctccaaca gccatatgcc ctattgcaac aaccatcctt agtgcactctg 300

tatctccaaa gaatcgcgac acaacaacta caacaacagt tgctaccaac aatcaatcaa 360

gtagttgcag cgaaccttgc tgcttatctg cagcaacaac aatttcttcc attcaatcaa 420

<210> 1342

<211> 296

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-H1

<400> 1342

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gtctgtttca ctgatgtgta tcgtgaggct ggagcaacta ttggaatagc tgattatact 120

aactatgaag atatgaaaca cgcgataagg aagctagatg attctgagtt ccgtaatgct 180

ttttcaagga catatgtccg ggtgagggag tatgatgcta ggcgagccg ttctcgctcc 240

agaggcagaa accgctctaa gtcaagaagc agaagccaca gccattcgta ctcaag 296

<210> 1343

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F2

<400> 1343

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tttcggctgg tattctgac tacatggcct tgggtggacct catcgagct gattttctca 120

gcaagaggat gagctgtaac ttgaggcttc aagtcggctc atacattgcc ttgttccttg 180

gtgccatggc catggcatct ctagccatct gggcttagca agtagaatgg aagtaaggca 240

aagatttgag agtgctgcct aattgccttt gatagcagga ggttctctcc agcagctagt 300

tggttgcaat tcttgatgag aatgggaggc attttttatt ttcttatatt cttctggttg 360

tctattggtt ctcttcatgt tgggtgtgga caagtagatt 400

<210> 1344

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F3

<400> 1344

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tgcaagtgtt gctaccgcaa ccattttccc acaatgtctc caagctccta tagcttccct 120

tcttccccca tacctctcac cagcgggtgtc ttcaatgtgt gaaaacccaa ttgttcaacc 180

ctacaggatc caacaggcaa tcgcaacagg catcttacca ttatcacctt tgttccctca 240

acaaccgtca gccctattac agcagttacc tttgggtccat ttggtggcac aaaacatcag 300

ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct gcatactctc agcaacatc 359

<210> 1345

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F4

<400> 1345

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tcaacagtgt tctaccaaca acccatcatt ggtgggtgcc tcttttagat tgcttatgag 120

ttatagttca ataatgaagt tttttggatg atgtttgtgg cgtcccagaa ataagaaagt 180

acattttctag aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaataaaaa aaaaaataaa 240

aaaaaaagaa aaaaaaaat aaaaaaaaaa cataagaaaa attaaaaaga gggaaaacat 300

aaggttttca acaactacaa caacttgt 328

<210> 1346

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-F5

<400> 1346

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tagcaaacct tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg 180

cattgaactc tgcttcttat ttgcaacaac aacaactacc attcagccag ctacctgctg 240

cctacccccca gcaattttctt ccattcaacc aactggcagc attgaactct cctgcttatt 300
 tacagcagca acaactacta ccattcagcc agctagctgg tgtgagccct gctaccttct 360
 tgatacaacc acagntgttg ccgttctacc agcacgctgc gcctaacgct ggcacccttt 420
 tacaactgca acaattgct 439

<210> 1347

<211> 443

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-F6

<400> 1347

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 cgcggcacag gagacggccg tgcacatcgt gtacgttgac cgccccgagg acgccgaccc 120
 tgaggagttc cacatccgca ccttcacccc cgtcctcggc agcgaacaga aggccagggg 180
 cgcagtgtc taccactaca agaacgcgc cagcggcttc tccgcgaagc tcacccccca 240
 gcagggtcaag gatctcaagg agcaaccagg tgttctccag gttgtgccga gccagactta 300
 ccagctacat ggccctgggt ctggcactca ccagggcagc acacacacct tgggccttat 360
 gtgaaggcgt atgagaatca agaagactat gtttagtatg gctgtatggc acangtctga 420
 cgaatgtgta tagtacagta cta 443

<210> 1348

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F7

<400> 1348

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 gaaacaatgc ccgtgccaat gacagaaacc ggcgcaatga taggccccgc aactttgaca 120
 ggtcaaggaa ctttgacagg agaagggaga acatgcaaaa ctaccagaac agagatgggc 180
 ctctgcca aggtttcaat ggccctccac ctccacctgg ccagaaccag atgccatccc 240

accatgggtca gggcaacatg cctccgcaac caccacatgc tgggtggcggc caaccaaact 300
atcagcccca aatgcaaaac ccacagacgg gctacaaccc tggcggtgct ctcactacc 360
agcaagggtgc tgctcctggc taccaagggtg gacctccggg gtatcaaggt ggtaacc 417

<210> 1349

<211> 236

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F8

<400> 1349

cggacgcgtg ggcggacgcg tgggcggacg cgtggggtag aacggcaaca actgtgggtg 60
tgtcaagaag gcagcagggc tcacatcagc tagctggctt tgacaaaccc aacagtgttc 120
taccaacaac ccatcattgg tggtgccctc ttttagattg cttatgagtt atagttcaat 180
aatgaagttt tttggatgat gtttgtggcg tcccagaaat aagaaagtac atttct 236

<210> 1350

<211> 264

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-F9

<400> 1350

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agaagaaaga agaagtagcc agctctcgta tatgccttct tgccccatct ccgatctggt 120
cgctgtagcg ctcatcgccc ccgtcgtegc cggcctcctc ctctctctcc tccgctccct 180
cgctgctcc agccgatcta tgcgcaaggg gctcaacgga tggaacanat cctcgtcgat 240
gctcagggac gggttcgggt caag 264

<210> 1351

<211> 375

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-G1

<400> 1351

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agaccatcag ggcacaacag ctgcagcaac tcgtgctacc tctgatcaac caagtagctc 120

tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 180

cactgaaccc tgctgcttat ttgcagcaac aactattacc atttagccag ctagctactg 240

cctactctca gcaacaacaa cttcttccat ttaaccaatt ggccgcactg aaccccgctg 300

cttatttgca gcagcanata ctactacat ttagccagct agctgcagca aaacgtgctt 360

tcctcttgac acagc 375

<210> 1352

<211> 362

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-051-Q1-K1-G10

<400> 1352

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nataggatcc tcaacagcac ctttatctag ctacatggga ttcgagcaga tgaacttata 120

tgacatgaag tcagatattt cacttgcaaa cgttggggat cagaatgtaa taggcacttt 180

acaatcctgt actgttgaag aacttccaaa ctttgatata ttgatgtcca gaagtgatga 240

tcaaaatggt gaaaccccca ttccacataa tctggggaat atgacaccag atgaagatca 300

gttgccacca ccacctgctc tccccccaat gcaatggaag atgacaagac aaacaacttt 360

ac 362

<210> 1353

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G12

<400> 1353

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gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc 120

tcctatagct tcccttcttc ccccgtagct ctaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggacaaaaac atcatggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaact 396

<210> 1354

<211> 317

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G2

<400> 1354

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 ggttcggctg cagtgggtac gaagtccggc acgccccggg ctaccgagga gccgtggcac 180
 cacagggagc tctggtctat tcgtgcgggt aaagctgccc agacagcgac gtgcgactgg 240
 gacattctga ggccagcaga cgggtggacga gcattggacg ggacgcacgg cactttgttg 300
 cgataacgat gaagctg 317

<210> 1355

<211> 286

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G3

<400> 1355

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 gcaagcaggc ctagtacgcc gactgcgcgt tctctctatt acacatatag gccctccct 120
 gcgtgtatgc ttgttaccgt cgtgtcgaa cttgtactac gaggctccat cgaacatcga 180
 tggcttgctt ctttatcaga acatgtttga ataaacgcta tttggtaaaa cacaatatac 240
 tagacaatgt cagctaaaat gtggagaagt gggagcagaa caaggc 286

<210> 1356
 <211> 89
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G5

<400> 1356

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 gtttcccaga aatgagaaag tacatttct 89

<210> 1357
 <211> 349
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G6

<400> 1357

cccacgcgtt cgaccacgcg tacgcccacg cgtacgacca cgcgttcgtc cttgtcgtga 60
 tccgtccagg ggagcaaaca agcaagcaag taaacgggag aggagctgga tagaggccga 120
 cgactcgaag caaccgccga tcggagccgc ggctgaggag gaggaacaag ctcgagattg 180
 tgggtctcgg ctgcggcagc acggcgcgtg cagagcacgt tgtggccaac gcctgacgag 240
 agacggagta cgtgcgccgt ctgcaccgcc actcgccggc cgagcaccat tgtacttgca 300
 ccctcgtcaa gcacattaag ggcgccgtcc accttgtgtg ggagctggt 349

<210> 1358
 <211> 412
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G7

<400> 1358

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 cattgataag acgttctcga ttgtagccaa tattttattg caaataattc cgacaacctc 120
 cggggaaaaa agggcattta cttattatag agatgggtgcg atttgactct tttttttttt 180
 tagccctacc tatatctcat tcttacgaga aagagagagg gttcgcatag agagaacaaa 240
 attagtaaag gaaaccgcg cttggggaag gtgaggtgaa ctaacaattc cttctgtcgt 300

gtatcctcga ttgatgtggc ctcagatgct tcaattgtag atttgagtat tgagcgaaag 360
gttacaccta caggataggt tctgtattac agggcaatcc gactctacta gt 412

<210> 1359

<211> 324

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-G9

<400> 1359

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cttcggtatg tgaaaacca attcttcaac cctacaggat ccaacaggca atcacagctg 120
gcatcttacc tttatcacc ttggtccttc aacaatcatc aaccctatta catcagttac 180
ctttggtgca tttattggca caaaacatca gggcacaaca actaccacaa cttgtgctag 240
caaaccttgc tgctacttt tagcaacagc agtttcttcc attcaaccaa ctaactgcat 300
tgaactctgc ttcttatttg caac 324

<210> 1360

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-051-Q1-K1-F12

<400> 1360

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cttccttatg ctcttggtc tttctgcaag tgttgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaaac ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcatac tctcagcaac atcagtttct ttcatttaac caactggc 408

<210> 1361

<211> 443

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-F4
 <400> 1361

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gcagttgctt gcatccaacc cacttgctct ggcaaacata gttgcatacc aacaacagcg 60
aacaattgca acagtggcta ccagcgctca gtcaactagc catggtgaac cctgccgcct 120
acctacaaca gcaacaactg atttcatcta gccctctcgc tgtggttaat gcacctacat 180
acctgcaaca acagttgctg caacagattg taccagctct gactcagcta gctgtggcaa 240
accctgctgc ctacttgcaa cagctgcttc cattcaacca actgactgtg tcgaactctg 300
ctgcgtacct acaacagcga caacagttac ttaatccact agcggagggt aaccattgg 360
tcgctgcctt cctacagcag caacaattgc tgccatacaa ccagttctct ttgatgaacc 420
ctgccttggt gtggcagcaa ccc 443
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<210> 1362
 <211> 222
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-F5
 <400> 1362

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gctccttggt ctttgtgcaa gtgctgtac ggcgaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccgacct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
ccaattctt caaccctata ggatccaaca ggcaatcgca gc 222
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<210> 1363
 <211> 441
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-F6
 <400> 1363

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aacaattcca gggcatgac aagcagcaac aaccacaaca gcctcagcaa tatcagcggg 60
gccaggaaaa atcacaacag caacaatgtc attgccagga gcagcaacag actacaaggt 120
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gcagctataa ctactatagc agtagctcaa atctaaaaaa ttgtcatgaa ttcctaaggc 180
 agcagtgcag ccctttggta atgccttttc tccaatcacg tttgatacaa ccaagtagct 240
 gccaggtatt gcagcaacaa tgttgtcatg atcttaggca gattgagcca caatacattc 300
 accaagcaat ctacaacatg gttcaatcca taatccagga ggagcaacaa caacaaccat 360
 gtgagttatg tggatctcaa caagctactc aaagtgcggt ggcaatcttg acagcagcac 420
 aatacctacc atcaatgtgc g 441

<210> 1364

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F7

<400> 1364

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 aaagtgccat agcataatcc aaaacttgac agtacagaac agcatccagg aaaaaacaga 120
 acccaaaatc gactccggca gttcttagct ataatataga taccgcattt agacaagcac 180
 ccgacgagta gagctctcca ctcaaaccat cctaagcctt tactgtctca gttggggcct 240
 cgagcacaag gcccttggtg ggctttgcca gcaggctcgggt gtactgctgg aacggggcca 300
 tggagaactt ggtctggctc cagaattca gagttaggaa gccgtaggtc ttcacaggc 360
 agtcgaaggt tgccttgacg aagttgccaa gggctcttagt ggagccacgg gacgaggtga 420
 agacatcctc aatgccagcg aa 442

<210> 1365

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F8

<400> 1365

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gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagcagg catcttacct 240
 ttatcacccct tggttctcca acaaccgtca gccctattac agcagttacc tttggtgcat 300
 ttgttggcac aaaacatcaa ggcacaacaa ctacaacaac ttgtgctagg aaaccttgct 360
 gcctactctc agcaacagca gtttcttcca ttcaaccaac tggctgcatt gaactctgct 420
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<210> 1366

<211> 232

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F9

<400> 1366

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 aaccttgctg cctactctca gcaacaacag tttctgccat tcaaccaact agctgcattg 180
 aactctgctg cttatttga gcaacaacaa ctactaccat tcagccagct ag 232

<210> 1367

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G1

<400> 1367

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 acgcgctatc tccgtgcttc tgcataatgac atgtgcatca agttgaagga gagaggcatt 120
 ttagcgaaac ccacacatga cactataatc cgacttgctc ctcccctcac aatcagtcct 180
 gaggagcttg cagaagcatc caaggcgctt agtgacgtgc tggaacatga cttgccacag 240
 ctgcagctgc agaagcagat aaaaaagcca gaatctgagg cagagaagcc agtctgtgac 300
 agatgcggcc gggacttgta cggatgaatg aagcctccga acagagataa cttcattttc 360
 gtacgcaccc atctcgcccc agaagaaata ataacagagc agaggatgcc agctgcctag 420
 ctacttgggt tacggtaatg ttatgc 446

<210> 1368
 <211> 456
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-G10

<400> 1368

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 tcccggctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
 tactcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat gatagcttca 180
 gtatgtgaaa acccagctct tcaaccctat aggtccaac aagcaatcgc agcaagcaac 240
 atacctttat cacccttggc tcaacaatcg ccagccctat ctttggtgca gtcattggta 300
 caaaccatca aggcacagca gctgcagcaa ctctgtctac ctgtgatcaa ccaagtagct 360
 ctggcaaacc tttcttccta ctatcagcaa caaccaattc tttcatgcaa ccaactatct 420
 aactgaacc cctgtgctt atttgagca acaact 456

<210> 1369
 <211> 332
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-G11

<400> 1369

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 tgggccaccg acgaccactc cctcaacaac gccttcagca cctacggcga ggtcctcgag 180
 tcgaagatca tcttgatcg ggagacgag aggtcccgcg gcttcggctt cgtcaccttc 240
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 cgcaacatca ccgttaacga ggcccactcc cg 332

<210> 1370
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G2

<400> 1370

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcaatgtgtg aaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
aactctgctg cttatttgca ac 442

<210> 1371

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G3

<400> 1371

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gaaccctagc cctgcttcgt tgccatggcg agcagcgcta gccaggcgag cctcctgctc 120
cagaagcagc tcaaggatct tgcgaagaac cccgtggatg ggttctccgc cgggcttgta 180
gacgacagca acatcttcga gtggcaggtc accatcatcg gaccgcctga caccctatat 240
gatggaggct acttcaatgc aataatgacc ttccccaga actatcccaa cagcccgcca 300
tcagtaagat ttacttctga gatgtggcat ccgaatgttt atcctgatgg acgtgtttgc 360
atttctattc ttcattccacc tgggtgaagat cccaatggtt atgagcttgc aagcgaacga 420
tggacaccag tgcacac 437

<210> 1372

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G4

<400> 1372

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ctaccattta gccggctagc tgcagcaaac cgtgcttcct tcttgacaca gcaacagttg 120
ctgcctttct accagcagtt tgcggctaac cccgcaaccc tcttacaact acaacaattg 180
ttgccctttg tccaacttgc tttgaagacc gagcggcctc ctaccaacaa cacatcattg 240
gtggtgacct cttttagatt gcttattagt tgtaattcaa taataaagtt ttttgatga 300
tgtatgtggc caaccagaaa taagaagtta catttccaga ttttaatgtg 350

<210> 1373

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G5

<400> 1373

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caatttcttc catgcggcca actagcagca ttgaactctg ctgcttattt acagcagcaa 120
caactactac cattcagcca gctagctgat gtgagccctg ctgccttctt gacacaacaa 180
cagttgttgc cgttctacct gcacgctatg cctaacgctg gcaccctctt acaactgcaa 240
caattgctgc cattcaacca acttgctttg acaaaccxaa cagtgttcta ccaacaaccc 300
atcattggtg gtgccctctt ttagattgct tatgagttat agctcaataa tgaagttttt 360
tggatgatgt ttgtggcgtc ccagaaataa gaaagtacat ttct 404

<210> 1374

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

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<400> 1374

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tatggatatg gacacgcata accatcagca tgaccaccac aagatccacc gattcgagca 120

gggcgacgtg gtggccatgc cggccggcgc ccagcactgg ctgtacaacg acggcgacgc 180
 gccgcttgtg gcggtctacg tcttcgacga gaacaacaac atcaaccagc tcgagccgtc 240
 catgaggaaa ttcttgctgg ctgggggctt cagcaagggg cagccccact tcgccgagaa 300
 catcttcaaa gggatcgacg cccggttctt gagcgaagcc ctgngcgtca gcatgcacgt 360
 cgccgagaag ctgcagagcc ggcgtgacca gcgagggcag atcgtccgcg tggagccgga 420
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<210> 1375

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-G7

<400> 1375

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 tttaaaaact caccatcccc atcaacatta ccaccacaat atccaccaac ttctatcata 120
 ttcaacctta attaccatac acatcctact cccatcactc atctttacaa ctacctcata 180
 cactcacact taacatcttt ctacttcttc taccataaca tcaacatcaa ccacctctat 240
 ccttccatca ctaaattctt tctatctcta ctcttcatca aacctcatcc ccacttctcc 300
 cataacatct acaaacttat ccacaccctc atccttatcc aaatcctt 348

<210> 1376

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F3

<400> 1376

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 cgggtccacct gccaccgccg gtccatgtgc cgcgcgccgt tcatctgccg ccgccaccat 180
 gccactacct tactcaaccg ccccggcctg agtcttatcc agagccacac atatgcccg 240
 gccaacagcc gtatccaagc ccgtgccatc tgcaggaaac ctgcggcggt ggcagcacc 300

cgatcctgcg ccagtgcgctc gagtttctga ggcacacagt caccocgacg ggcagcgcct 360
actgctcgcc 370

<210> 1377
<211> 391
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-E1

<400> 1377

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gcgccttaat ctatgagcga gtgctactta ccgcgactat attccatcaa tgctcacaag 120
gtcatataga ttcactagtt taccgcgtaca tcacacacaa cgagtgtctg cagtatgtaa 180
taacacaaat cttcaaacct atataatcta acagacacac tcagctatga tatcacatct 240
atcacactta ttcttccaac aatgacaacc cctataacac cacatacatc agctgcatat 300
atagtgcac aacatttggg accactaatt acaacaactt gtgctacaaa accttgctga 360
atactctcag atacaccagc gtcttccata c 391

<210> 1378
<211> 446
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-E10

<400> 1378

ggaatccagt agcaacaaca gagcaacaat ggcgaccaag atattttccc tccttatgcg 60
ccttgctctt tctgcatgtg ttgctaacgc gacaattttc cctcaatgct cacaagctcc 120
tatagcttcc cttcttcccc cataccttcc atcaatgata gcttcagtat gtgaaaaccc 180
agctcttcag ccctataggc tccaacaagc aatcgcagca agcaacatac ctttatcacc 240
cttggtgttt caacaatcgc cagccctatc tttggtgcag tcattggtac aaaccatcaa 300
ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac caagtagctc tggcaaacct 360
ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta cactgaaccc 420
tgctgcttat ttgcagcaac aactat 446

<210> 1379
 <211> 353
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-E11

 <400> 1379

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 caagggatta gccctccttg cgcttcttgc cctttttgtg agcgcaacaa atgcgttcat 120
 tattccacaa tgctcacttg ctcttagtgc cattattcca cagttcctcc caccagttac 180
 ttcaatgggc ttcgaacacc tagctgtgca agccaacatg caacaacaag cgcttgcggc 240
 gagcgtttta caacaaccaa ttgcccaatt gcacaacaat ccttgccaca tctaacaata 300
 caagccatca caacgcaaca gcaacaacag gtcttaccag cacttgacca cct 353

<210> 1380
 <211> 422
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-E12

 <400> 1380

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 caacgattac catttagcca gctagctact gcctactctc agcaacaaca acttcttcca 120
 tttaccaat tggccgcact gaaccccgct gcttatttgc agcagcaaact actactgcca 180
 tttagcgagc tagctgcagc aagtcgtgct tccttcttga cacagcaaca gttgctgcct 240
 ttctacaagc agtttggggc taaccccgca acccttttac aactacaaca attggtgccc 300
 tttgtccaac ttgctttgac aaacccagca gccttctacc aacaacacat cattggtggg 360
 gccctctttt agattgatta ttagttgtaa ttcaataata aagttttttg gatgatgtat 420
 gt 422

<210> 1381
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-E2

<400> 1381

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ttttgcctcc ttatgtctct tggatatttct gcaagtgtg ctacggcgac cattttcccg 120
caatgtcac aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcacctt gttcctccaa caatcatcag cctattaca gcagttacct 300
ttgggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgtg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca acaacc 446

<210> 1382

<211> 215

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-E3

<400> 1382

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tacaccaaca ctcacaacca acataggctt tctcaaataat ggtcgggtctt actactctaa 120
ctactactac attgaccatt ttaaccact acttacattc atctataact cccacttttc 180
acatctacct ctacacaatc acacacttac ctatt 215

<210> 1383

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-E4

<400> 1383

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tctgttgtgt atctagtagt tggaggagat atgcagtttg cacttgcatc ggacacgaac 120
tcaggctctc accagataag atcttgtgag ggtgatggga ttgacaggtt ggaaaaatta 180

agtattgggg gcagaaagca ggagaaagct ttgagaaata ggtgctttgg tggtagagtt 240
 gctgcaacta cacaatgtat tcttacctca gatgcttgtc ctgaaactct tcattctcaa 300
 acacagtcct ctaggaaaaa ttatgctgat gcaaaccgtg tatctgctat cattttgggc 360
 ggaggcactg gatctcagct ctttcctctg acaagcacia gagctacgcc tgctgtacct 420
 gttggaggat gttacaggct tatt 444

<210> 1384
 <211> 443
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-043-Q1-K1-E5

<400> 1384

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 gccaaagatat tgtccatcct tatgctcctt gctctttctg catgtgttgc taacgcgacc 120
 atttttcctc aatactcaca agctcctata gctgcccttc ttcccccata ccttccatca 180
 atgaccgctt tagtatgtga aaaccagcc cttcaaccct acaggatcca gcaagcaatc 240
 gcaacaagca acttaccttt atcacacctg ttctttcaac aatcgccagc cctatctttg 300
 gtgcagtcac tggtaaaac catcaggga gaacagttgc agcaactcgt gctaccagtg 360
 atcagccaag tagctctggc aaacctttcc cctactctc agcaacaaca atntcttcca 420
 ttcaaccaac tgtctatact gaa 443

<210> 1385
 <211> 113
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-E8

<400> 1385

ggcgatgatt gagtaataat gtgtcacgca tcaccatggg tggcagtgtc agtgtgagca 60
 atgacctgaa tgaacaattg aatgaaaag aaaaaagta ctccatctgt tcc 113

<210> 1386

<211> 445
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-E9

 <400> 1386

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gcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaacg   60
gctacgattc agtcagctag ctgctgccta cccccagcaa tttcttccat tcaaccaact   120
ggcagcattg aactctgctg cttatttaca acagcaacag ctaccaccat tcagccagct   180
agctgatgtg agccctgttg ccttcttgac acaacaacag ttgttgccgt tctacctgca   240
cgctgcgcct aacgctggga cctctttaca actgcaacaa ttggctgcat tcaaccaact   300
tggtttgaca aaccaacca gggcttaacc acaaccatc attgggtgtg ccctctttta   360
gattggttat gagttatact tcaataatga attttttgga atgatgttgg ggctttccag   420
aaataagaaa gtacatttct taaaaa                                         445
  
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<210> 1387
 <211> 409
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-F10

 <400> 1387

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gggcgcggga cggaacggy acaggacccc aaaatctcag atccttcttg cccgcccgcc   120
cgtgcccgtc gacgcgtcgt tcttgccggc cgcgcctcac ctccgccctc tctcctcca   180
gggggatcgg atacgccaca ggctgcgcga tgggtgctgtg ggtcttcggc tacggctccc   240
tcattctgaa ccccggttc gacttcgacg aaaaaatcct cggcttcacg aagggtaca   300
agcgcacctt taatctcgct tgcattgacc acagaggcac accggagcat tcggcgagga   360
cctgcacgct tgaaaccgac gacgaggcca tatgctgggg aattgcata               409
  
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<210> 1388
 <211> 308
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F11

<400> 1388

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tctctgctcg cggcagccga cgcgctccgg ggctgggtggg atgacgtcaa cgagtcgccc 120
cagtggcagg acgcggcctt cttctccctc gccgccgact acgccctcgt ctccgccgtc 180
gcactgattc agctcgtag gatccagcgc cgggtgcccg agttcggatg gaccacgcag 240
aaggtctttc acctcatgaa cttccttgtc aacgggggtcc gtgctctggt attcggcttc 300
catgtcca 308

<210> 1389

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-F12

<400> 1389

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cggccgagat attttccatc cttatgctcc ttgctctttc tgcattgtgt gctaacgcga 120
ccatttttcc tcaataactca caagctccta tagctgccct tcttccccca taccttccat 180
caatgaccgc tttagtagtg gaaaaccag cccttcaacc ctacaggatc cagcaagcaa 240
tcgcaacaag caacttacct ttatcacacc tgttctttca acaatcgcca gccctatctt 300
tggtgcagtc attggtacaa accatcaagg cagaacaggt gcagcaactc gtgctaccag 360
tgatcagccc agtagctctg gcaaaccctt cccctactc ttaacaacaa caaatttctt 420
gcatttcacc aactgtctat actgaaccct gct 453

<210> 1390

<211> 394

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-F2

<400> 1390

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gctaagatcg ccgcagccgc cgcggcggcg gcggcgctgt gcttcggggc cctgggtggcc 120
 gtggccgtct gccaaaggcga ggtcgagcgg cagaggctca gggacctgca gtgctggcag 180
 gaggtccagg agagcccgtc cgacgcgtgc cgccagggtcc tcgaccggca gctaaccggc 240
 ggcggcgctc gcggcccgtt ccggtggggc accgggctcc ggatgcgggtg ctgccagcag 300
 cttcaggacg tgagccgcga gtgccgtgc gccgncatcc ggagcatggt caggggctac 360
 gaggaggcca tgccgctct ggagaaaggc tggt 394

<210> 1391

<211> 251

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D9

<400> 1391

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 cctgcggcag ccgactgcat gccctacgc tgctgccggc ggtgtcccc actgaagaaa 120
 ctatgtgctg tagtatagcc gctggctagc tagctagttg agtcatttag cggcgatgat 180
 tgagtaataa tgtgtcacgc atcaccatgg gtggcagtgt cagtgtgagc aatgacctga 240
 atgaacaatg g 251

<210> 1392

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F9

<400> 1392

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 gcgtccttat gtccttgggt ctttctgcaa gtgctgctac cgcgaccatt ttcccgcaat 120
 gtcacaagc tactatagct tcccttctta ccccatacct ctcaccatcg gtgtcttcag 180
 tatgtgaaaa cccaattctt caacctaca ggatccaaca tgcaatcgca gcaggcatct 240
 tacctttatc acccttggtc ctccaacaac cgtcagccct attacagcag ttaccttcgg 300
 tgcatttgtc ggcacaaaac atcagggcac atcaactaca acaacttggt ctagcaaacc 360

ttgctgccta ctctcagcaa cagca

385

<210> 1393

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G1

<400> 1393

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ggcgagagat tttccatcct tatgctcctt gctctttctg catgtgttgc taacgcgacc 120
atTTTTcctc aataactaca agctcctata gctgcccttc ttcccccata ccttccatca 180
atgaccgctt tagtatgtga aaaccagacc cttcaaccct acaggatcca gcaagcaatc 240
gcaacaagca acttaccttt atcacacctg ttctttcaac aatcgccagc cctatctttg 300
gtgcagtcac tggtaaaaac catcagggca gaacagttgc agcaactcgt gctaccagtg 360
atcagccaag tagctctggc aaacctttcc ccctactctc agcaacaaca atttcttcca 420
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<210> 1394

<211> 295

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G11

<400> 1394

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agtccatcct gcatcatcag ccgcatacgc gccaggtcgc ggggctgttg gcggcgcata 180
tagcgcatca tctgacggct atgtgcggcc tgcatacatc gactccatgc ccctacgctg 240
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<210> 1395

<211> 408

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-025-Q1-K1-G12

<400> 1395

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gcnnggtgcac gttntgagtc cattccactt gatcataata ggcagacctt ggtgtctgaa 120
gacattgtac acaatctgct tcattctcata agcaacactg gacctgcaat tgagtgtgaa 180
ttgctccagg ttttcgttgg tctaactgac tcttcgacat ctgtacaaaa tatagttgat 240
gctatcaaaa gttcaggtgc tattgtcagt ttaattcagt ttgttgaagc acctcaaagg 300
gaagtacgca tgaattccat caagctcttg aataacatat caccttatat ggggtcaagaa 360
cttgctgatg cttttcgtgg aaacttcagt caactaagca gcttggtc 408

<210> 1396
<211> 308
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G2

<400> 1396

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aatgttaagt gatgcttga cacacacagt cggcttcac atgatgcacc atcatgacca 180
tgcacagcag tatcaatcac ctaacatgtg acacattaat aactaccatg gctatcacia 240
ctgcaattct acctgtagca ccatacgcaa tatgaggact atatgcattc acatacacat 300
tagcttca 308

<210> 1397
<211> 386
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G5

<400> 1397

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tagctgcgac gtgccggcgc cgcagcagcg gctgatctac aagggccgga tcttgaagga 120
cgagcaaacc ctagccagct acggtgtgga gacagaccat acaatccaca tggtagctgg 180
tgctgcgcca ccaccagcat cactgcacc tgcagccaac caagaacctt cactgctgc 240
tcctgccagt tccccagcag caggattggg tggcttgttg caaaatctgg gtgctacagg 300
ggctgctgct aacagtgggg gtttgggttt gcttggatct gggctccctg aattagacca 360
catgcaacaa cagctagctg aaaatc 386

<210> 1398

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G6

<400> 1398

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aatgtcgca agctcctata gttcccttc tcccccgta cctctcacca gcggtgtctt 180
cggtatgtga aaacccaatt cttcaaccct acaggatcca acaggcaatc acagctggca 240
tcttaccttt atcaccttg ttcctccaac aatcatcagc cctattacat cagttacctt 300
tggtgcattt attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa 360
accttgctgc ctactctcag caacagcagt ttcttcatt caaccaacta gctgcattga 420
actctgcttc tta 433

<210> 1399

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G8

<400> 1399

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gcaaatgcgt tcattattcc acagtgtca cttgctccta gtgccagtat tccacagttc 120
ctcccaccag ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa 180

ctagcgcttg cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg 240
gcacatctaa ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgccatca 300
ctgagccacc tagccgtggt gaaccctgtc acctacttgc aacagcagct gcttgcattc 360
aaccacttg ctctggcgaa cgtagctgca taccagcaac aacaacagct gcaacagttt 420
atgccagtgc tcagtc 436

<210> 1400

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-G9

<400> 1400

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agtgcacagg cagcggagca aggagaacga ggccacttcg ttctgaacag cggacacacc 120
attccggggc ttgggtctagg cacttggagg gccggctcag ataccgctca ctctgttcgg 180
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aaagagatcg gtagaggact taaagctgag atggaaggcg ggatcaacag gaaagatcag 300
tcagtgcagt cgaagctatg gtgcaccgag ctggctcctg atagggctcg gtcagcactc 360
gagataaac tc 372

<210> 1401

<211> 378

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-H1

<400> 1401

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tggtgtgagc cctgctacct tcttgacaca accacagttg ttgccgttct accagcacgt 180
tgcgctaac gctggcacc tcttacaact gcaacaattg ctgccattca accaacttgc 240
tttgacaaac ccagcagtg tctaccaaca acccatcatt ggtgggtgcc tcttttagat 300

ttcttatgag ttatagttca ataatcaagt gctttatctg atgtttgtgg cttcccagaa 360
ataagaaagt acatttct 378

<210> 1402
<211> 358
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-H11

<400> 1402

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cgaccaaaca gatccaatcc aatggcgatg gcaccgtccg cagcatgcgt cgtctcgttc 120
cccgccccgc cggcggcgtc cacggccggg ccccgcgccg ccgcggggcg cggggcggtc 180
cacgctttcg cggggtcggc ggagggcgcc aagtgggtgg cgccgctgct ggggtggtcg 240
gggaaggccg actacctgga ggccccggcc ccggcgcccg cgggggcgca tgacgaggcg 300
ccgcggaggc agttcgtggg ggtgatgacg gaggagaagg cccgggagct gcgggcgc 358

<210> 1403
<211> 151
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-H12

<400> 1403

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ctcaatcatc gccatgggtg gcagtgtcag tgtgagcaat gacctgaatg aacaattgaa 120
atgaaaagaa aaaaagtact ccatctgttc c 151

<210> 1404
<211> 430
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-H2

<400> 1404

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tgcgggggct cgggacggga acgggacagg accccaaaat ctcagatcct tcctgcccgc 120
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 ctccaggggg atcggatacg ccacaggctg cgcgatggtg ctgtgggtct tcggctacgg 240
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 ctacaagcgc acctttaatc tcgcttgcat tgaccacaga ggcacaccgg agcatccggc 360
 gaggacctgc acgcttgaaa ccgacgacga ggccatatgc tggggaattg catattgtgt 420
 caagggtggt 430

<210> 1405

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F8

<400> 1405

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 cgaaggcccg ggagtacgcc gcgggggttg cgatgatgtg ccggctgtcg gagccacagg 180
 agtgcagcat cttctccggc ggcgaccagt actagctacc atggttaaaa aaaatgcgag 240
 tcggcgcgag gtgcaagacg cagcatgtgt actgtgcgcg tgcaagtcca gaatggcgta 300
 gttctgacgt gggctcgcat tgctcgctgt tacaataatg ataataacta tgcggaataa 360
 atatgggaat gttgccagat 380

<210> 1406

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-E4

<400> 1406

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 acgctacggg atccaacaaa cgatcgcaac aagcatctta ccattatcac ccttggttcct 120
 ccaacaaccg tcagccctat tacagcagtt acctttgggc catttggtgg cacaaaacat 180

cagggcacia caactacaac aacttggtgt agcaaactt gctgcatact ctcagcaaca 240
tcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaaca 300
attaccattc agccagctag ttgctgccta cccccagcaa tttcttccat tcaaccaact 360
agcagcattg aactctgctg cttattttaca gcagcaacaa ctactacat tcagccagct 420
agctgatgtg agccctgct 439

<210> 1407

<211> 301

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-E5

<400> 1407

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tggcgaccaa gatacttttc cttcttatgc tccttgctct ttctgcatgt gttgctaacg 120
cgacaatttt acctcaatgc tcacaagctt ctatagcttc ccttcttccc ccataccttg 180
catcaatgat agctctagta tgagaaaacc cagctattca accctatacg cttcaacatg 240
caatcgtatt acgcaacata cctttatgac ccttggtgta acaattgcta ggcatatctt 300
a 301

<210> 1408

<211> 293

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-E7

<400> 1408

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ctaccattct acccacagaa tgtggcaaac attgttgcct tcttacaaca acaacaattg 120
ctaccattta gccaacatgc tttgacgaat cctaccacct tattgcaacc gaccaccatt 180
gggtggtgcc tcttctagat tttttatgat taatactgta ataataaagt cctcatgctg 240
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<210> 1409

<211> 431
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-E8
 <400> 1409

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gtcagcccta ttacagcagt tacctttggg ccatttggtg gcacaaaaca tcagggcaca   180
acaactacaa caacttggtc tagcaaacct tgctgcatac tctcagcaac atcagtttct   240
tccattcaac caactggctg cattgaactc tgctgcttat ttgcaacaac aattaccatt   300
cagccagcta gttgctgcct acccccagca atttcttcca ttcaaccaac tagcagcatt   360
gaactctgct gcttatttac agcagcaaca actactacca ttcagccagc tagctgatgt   420
gacccctgct g                                                    431
  
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<210> 1410
 <211> 412
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-E9
 <400> 1410

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cccacctcaa gcgctccggc aagatggagc tccctgagtg ggttgacatt gtgaagactg   180
cgaggttcaa ggagcttcct ccttatgatc ctgactggta ctacatcagg gctgcatcca   240
ttgcaaggaa gatctaccta aggcaaggca tcggtgtggg tggctttcag aagatctacg   300
gtggccgcca gaggaatggc tcccgccac cacacttctg caagagcagt ggtgctgttg   360
cacgcaacat cctgcagcag ctgcagatta tgggcatcat cgatgtcgat cc           412
  
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<210> 1411
 <211> 440
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F1

<400> 1411

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aatgctcact tgctcctagt gccattattc cacagtctct cccaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgctt 240
tacaacaacc aattgccccaa ttgcaacaac aatccttgcc acatctaaca atacaagcca 300
tcacaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atgggtgaacc 360
ctgccgcta cttgcaagag cagctgcttg cattcaaccc acttgctctg gcgaacgtag 420
tttgaacca gcaacaacaa 440

<210> 1412

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F10

<400> 1412

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atgattgagt aataatgtgg tcacgcatca ccatgggtgg caacgtcagt gtgagcaatg 120
acctgaatga acaattgaca tgaacagata aaaagtacta catctgttcc aaattaaaat 180
tggttttaac cttttaatag gtttatacta tagaacaata ccttggcttg gaacacaccg 240
atacaacatc gaaaagggtct tacacagaca atcagaatcg gcacacctat gagaagccccg 300
tgaaaattta taattgagaa aacttaaagt ttcaatcgat tgacggaggc ctgcacaaca 360
atatgcccaa gatgatgagg cttaaaacag aaaaat 396

<210> 1413

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F11

<400> 1413

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ctggagcgca ttcaaagaaa acttagagtt ccggatgagg acttctcaa gtggaagctt 120
gcattcatat ccatgaaccg gccagagtac ctccaggaca ctgatgttgt atcatcacgt 180
tttcagagga gagatgtata tgggtgcttgg gaacaatacc ttggcttga gcacaccgat 240
acaacatcga aaaggtctta cacagccaat cagaatcggc acacctatga gaagcccgtg 300
aaaatttata attgagaaaa cttaaagttt caatcgattg acggaggcct cgacaacagt 360
atgcccaaga tgatgaggct tagaacagat caattggcag aagaat 406

<210> 1414

<211> 329

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F12

<400> 1414

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aagcggcggc tgtggctgcc agacaccacc gtttcatcta ccgcctccgt tctatatgcc 120
gccttcgttc tatctgccgt cgcagcagca gccgcagcca tggcaatacc cactcaacc 180
accgcagcta agcccgtgcc agcagttcgg atcctgcggc gtaagcagcg tcggcagacc 240
gttcctgggc cagtgcgtcc agttcctgag gcaccagtgc agcccggcgg cgacgccta 300
cggctcgcca cagtgccagg cgcttgac 329

<210> 1415

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F2

<400> 1415

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tctcaatac tcacaagctc ctatagctgc ctttcttacc ccataccttc catcaatgac 180
cgcttcagtt tgtgaaaacc cagcccttca accctacagg ctccaacaag caatcgcaac 240

aagcaactta cctttatcac cctgttctt tcaacaatcg ccagccctat ctttggtgca 300
gtcattggta caaaccatca gggcacaaca gctgcaacaa ctctgtctac cagtgatcag 360
ccaagtagct ctggcaaacc ttactgccta ctctcagcat caacaatttc ttccattcaa 420
ccaactgtct aactga 437

<210> 1416

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F3

<400> 1416

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aggtggatgt tgggatcttg aacaaaacaa gggtattagg tcctaccatg ggcatctgag 120
tggtgtttac tgcctagctc tccatccaac aattgatatc ttactgactg gtggccggga 180
ttcagtttgc aatgtgtggg acatcagaac aaaagcacat gtttctgctt taacagggca 240
tgacaacact gtctgttcag tgattgctcg tcctacggat cctgaagttg ttactggttc 300
acatgagaca actattaaat actgggatct tgtaactggg aggactatgt gtacccttac 360
tgatcataaa aagtctgtcc gatctatggc gc 392

<210> 1417

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F4

<400> 1417

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caatgtcac aagtcctat agcttccctt ctcccccat accttccatc aattatagct 180
tcaatatgtg aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc 240
aacatacctt tatcgccctt gttgtttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctct gatcaaccaa 360

gtagctctgg caaacctttc tccctactct cagcaacaac aatttcttcc attcaaccaa 420
ctgtctacac tgaaccct 438

<210> 1418
<211> 400
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F5

<400> 1418

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gctgctgtgg ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 180
cgcttctatct gccgccgcag cagcagccgc agccatggca ataccctact caaccaccgc 240
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tgggccagtgc cgtcgagtgc ctgaggcacc agtgcagccc ggccggcgacg ccctacggct 360
cgtcacagtgc ccaggcgctg cagcagcagt gctgccacca 400

<210> 1419
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-F6

<400> 1419

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tttttctca atactcaca gctcctatag ctgcccttct tctacatac cttccatcaa 180
tgaccgcttc agtttgagaa aaccagccc ttcaacccta caggctccaa caagcaatcg 240
caacaagcaa cttaccttta tccccctgt tctttcaaca atcgccagcc ctatctttgg 300
tgcatcatt ggtacaaacc atcagggcac aacagctgca acaactcgtg ctaccagtga 360
tcagccaagt agctctggca aacctttcta cttactctca gcaacaacaa tttcttccat 420
tcaaccaact gtctacactg 440

<210> 1420
 <211> 373
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-025-Q1-K1-F7

 <400> 1420

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 gccgcgggtc cacctgccac cgccggtcca tgtgccgccg ccggttcata tgccgacgcc 300
 accatgccac taccctactc aaccgncccg gctcagcct catccccagc cacacccatg 360
 cccgtgccaa cag 373

<210> 1421
 <211> 238
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-025-Q1-K1-E2

 <400> 1421

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 aatacaacct tttcctccgt atctcacaca agcgtgcct ttcataatacc aaaacccata 180
 catctaacac ctccggttca cctaccacct cccatgcata taccacaccc ggatcacc 238

<210> 1422
 <211> 428
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-025-Q1-K1-C8

 <400> 1422

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 agaaaaag 428

<210> 1423
 <211> 418
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-D1
 <400> 1423

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 caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
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 tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttct 418

<210> 1424
 <211> 420
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-D10
 <400> 1424

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 aattcaatga agatgacttg tgcaaattgc ttccatatgt cagtcgtcgt cgtcagacac 180

ctgaactttg tcgattgctt gggttgtcgc agaaaatgcc aggtgtcatt gaagttcttg 240
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 aatttgaacc agtacacctt cttaaagcat atctaaggga tgttaagaaa atgtcacacg 360
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<210> 1425

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D12

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 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcattctacc 240
 tttatcacc ttgttctctc aacaatcctc agccctatta cagcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
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<210> 1426

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D2

<400> 1426

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 aagagcagga tcttctatat cctatgggtc ccatcctccg ccaagggtgaa gagcaagatg 180
 ctttacgcaa gctcaaacca gaaattcaag agtggcctca atggcattca ggttgaactc 240
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 caccgccatc gcgagtttca tgatcacgca tcatggactc gcctactact gtggatttgt 360

atgccattat agacttgggtg ctgcgaaaga ctgctttgggt gatttgtggg tttgttgctg 420
tgtaaaaaga tcctcat 437

<210> 1427
<211> 53
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D3

<400> 1427

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<210> 1428
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D4

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cgttcattat tccacaatgc ttacttgctc ctagtgccat tattccacag ttcctccac 180
catttacttc aatgggcttc caacacctag ctgtgcaagc caacatgcaa caacaagcgc 240
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taacaatata atccattaca acgcaacagc agcaacagtt tctaccagca ctgagccacc 360
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ctatggcgaa cgtag 435

<210> 1429
<211> 443
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D5

<400> 1429

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 cgacaatttt ccttcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc 180
 catcaattat agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag 240
 caatcgcagc aagcaacata cttttatcgc ccttggtggt tcaacaatca ccagccctat 300
 ctttggtgca gtcattggtg caaaccatca gggcacaaca gctgcagcaa ctctgctac 360
 ctgtgatcaa ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatgtc 420
 ttccattcaa ccaactgtct aca 443

<210> 1430
 <211> 389
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-D6
 <400> 1430

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 gagagcgctc agccgtgcaa gcctacaggc tacaactagc gcttgcgga agcgccttac 120
 aacaaccaat tgcccaattg caacaacaat ccttggtaca tctaacccta caaaccattg 180
 caacgcaaca gcatcaaaa caacagtttc tgccatcact gatccaccta gccgtggagc 240
 aaccctgtca cctacttgca gcagtaactg cttgcatgca acccacttgc tctcgctaac 300
 gtcactgcat accagcgaca acagcagact gcatcatgga atgccagagc tcagtcaact 360
 agccatggtg aaccatgccg tctacctac 389

<210> 1431
 <211> 356
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-D7
 <400> 1431

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 ggggctaaac ccgagcccg cttgcaacta caacaattgt tgccctcgga ccaactggct 120
 ttgacagacc caacggccta ctagcaacta cagataattg gtggcgccct cttttagatg 180

gctcattagt gggaattcaa caatcaagcg tgctagatga cgtacgtaga ctagcgcatg 240
 tcagaagcga cttacaacaa ccattaggtg aattgcaaca acaatgggtg gcacatctag 300
 cgggtacaaag cataggtacg catccacgac agcgtctacc tcttctgtca tgactg 356

<210> 1432

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D8

<400> 1432

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 gtgctcggtg ccctcgctct cctggctctc gctgagcg cgacctccac gcatacaagc 120
 ggcgggtg gctgccagcc accgcccgcg gttcatctac cgccgcccgt gcatctgcca 180
 cctccggttc acctgccacc tccggtgcat ctcccaccgc cgggccacct gccgcccgcg 240
 gtccacctgc caccgcccgt ccatgtgccg ccgcccgttc atctgccgcc gccaccatgc 300
 cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgtgc 360
 caacagccgc atccaagccc gtgccagctg cagggaacct gcggcggttg cagcaccgcc 420
 atcctggg 428

<210> 1433

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-D9

<400> 1433

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 gcgagctgca gtacaagcgg cggctgcggc tgccagacac caccgtttca tctaccggct 120
 ccgttctata tgccgcctcc gttctatctg ccgcccgcagc agcagccgca gccatggcaa 180
 taccacctc aaccaccgca gctaagcccc tgccagcagt tcggatcctg cagcgtcggc 240
 agtgtcggca gcccgttcct gggccagtgc gtgaggttcc tgaagcacca gtgcagcccc 300
 gcggcgacgc cctacggttc gccacagtgc catgcgctgc atcagcagtg ctgccaccag 360

atc

363

<210> 1434
<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-E1

<400> 1434

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tggctaccaa gatattagcc ctcccttgcc ttcttgccct tttagtgagc gcaacaaatg 120
cgttcattat tccacagtgc tcaattgctc ctagtgccat tattccacag ttcctccac 180
cagttacttc aatgggcttc gaacatccag ccgtgcaagc ctacaggcta caactagcgc 240
ttgcgggcag cgccttaca caaccaattg cccaattgca acaacaatcc ttggcacatc 300
taaccctaca aaccattgca acgcaacaac aacaacaaca acagtttctg ccatcactga 360
gccacctagc cgtggtgaac cctgtcacct acttgcaaca gcagctgctt gc 412

<210> 1435
<211> 387
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-E10

<400> 1435

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gattatccct ccttgcgctt cttgcgcttt ttgcgagcgc aacaaatgcg tccattattc 120
cacaatgctc acttgctcct agttccatta ttccacagtt cctcccacca gttacttcaa 180
tggccttcga acaccagct gtgcaagcct ataggctaca acaagcgatt gcggcgagcg 240
tcttacaaca accaattgcc caattgcaac aacaatcctt ggacacatcta acaatacaaa 300
ccatcgcaac gcaacagcaa caacagttcc taccagcact gagccaccta gccatggtga 360
accctgtcgc ctacttgcaa cagcagc 387

<210> 1436
<211> 396

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-E11
 <400> 1436

caaacatgct tttgggggat cgccacatat tgtttgcaag aggggttcaa tcgaagggt 60
 taggttatgc ttcgacaaag aattgaagcc tcgtgattgc cttaccactt ctttggcgaa 120
 tggaagtgtg tcaaaaagca agcactgccc gcggtacatc accttgccaa catatgatcc 180
 ccttgtgctt gccaatcaa ctgtagagat catgacacag ttcgatgaat ttgaggtgcc 240
 tgcagctctt tatacagctt aaaatgcaat tattgcaata gcagaagggtg ctgcgtgag 300
 cacctagaac caggcacatt tatcctggga tattcaatca tttgtacatg tacacttgaa 360
 agagaactga catcttttca acctgaaaat ttataa 396

<210> 1437
 <211> 420
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-025-Q1-K1-E12
 <400> 1437

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 ngtacctaca acagcaacaa ctgctttcat ctagcccgct cgctgtggcc aatgcaccta 120
 catacctgca acaacaattg ttgcaacaga ttgtaccagc tctgactcag ctagtgtgtg 180
 caaacctgct tgcctacttg caacagctgc ttccattcaa ccaactgact atgtcgaact 240
 ctgctgcgta cctacaacag cgacaacagt tacttaatcc actagcagtg gctaaccat 300
 tggctgctgc cttctacag cagcaacaat tgctgccata caaccagttc tctttgataa 360
 accctgtctt gtcgaggcag caaccatcg ttggaggtgc catcttttag attacatatg 420

<210> 1438
 <211> 385
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-C7

<400> 1438

ggatttattc cttgggaacc tgcaacatca atgctaagtt tgatgctaaa cctattgagc 60
ttattgttac aacatatcag gctgcattgc tactactggt taatggatct gacaggctta 120
gttattctga gattgtaaca caattaaacc tgtcagatga tgatgtagtg cgtttgctcc 180
attctctttc ttgtgcgaag tacaagatcc ttaacaagga accggctagt agatccatct 240
ctcccaatga tgtttttgag ttcaattcaa agtttactga cagaatgaga agaatcaagg 300
ttccactccc tctgttgat gagaagaaca aggttggtga agatgttgac aaagacagga 360
ggtatgcaat tgatgcatca attgt 385

<210> 1439

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-C6

<400> 1439

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caaggacaaa agatcacctg gctaactccg catgctcttc agcaagtatt aactgatgat 120
gttgatttca atgtgatgct ttcttttcta gaattctatg agactcttct aggatttggt 180
aacttcaaaa tctatcattc aataaatgta aattatcctc ctattctgga tccacgtctg 240
gaagcttttag ctgttgagct ctatgcattg tgccgataca tgtctgctgg ttccagaaga 300
atgattggga attcaciaac tgacgaagta atggaagata aggatgagaa aagtaaagct 360
gatgaagtaa ttgaggaaga gaagggtgtg aagaataaag caagctcaaa agcagatgaa 420
tctgagttca 430

<210> 1440

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-C7

<400> 1440

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ccttatgctc cttgggcttt ctgcaagtgc tgctaccgta accatttttc cacaatgctc 120
 acaagctcct atagcttcct ttcttatccc catacctctc accaactgtg tcttcagtat 180
 gtgaaaaccc aattcttcaa ccctacatga tccaacatgc aatcgagca ggcattctac 240
 ctttatcacc ctggttcctg caacatccgt cagccctatt acagcattta cttcgatgc 300
 atatgttggc acaaaccatc aaggcacaac atctactacg acttgtgcta ggaaaccttg 360
 cttcatactc tcagcaacag caggttcttt cattcaacca actcgctgca ttgaactctg 420
 ctgcttattt gcaac 435

<210> 1441

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-C8

<400> 1441

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 ttatccctgc ttgcgctgct tgccctgtta ctgagcgcac cacatgcgtt cattattaca 120
 cagcgctcac ttgctcctag tgccattatt ccacagttcc tcccaccagt tacttcaatg 180
 ggctacgaac atccagccac gcaagcctac aggctacaac tagcgcttgc ggcgagcgac 240
 ttacatcaac caattgccc atagcaacaa caatacttga cacatctaac cctacaaacc 300
 attgcaacgc aacaacaaca acagcaccag ttctgtcat cgactgagcc acctagccgt 360
 ggagaaccat gtcagctact tgcaacagca gctgcttgca tccaatccac ttgctctggc 420
 gaacgtagct ggcta 435

<210> 1442

<211> 403

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-C9

<400> 1442

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 aanagattat cctccgtgc gcttcttgcc ctttttgtga gtgcaacaaa tgcgttcatt 120

attccacaat gctcacttgc tccgagtgcc attattccac agttcctccc tccagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctataggc tacaacaagc gcttgcgggc 240
agcgttttat aacaaccaat tgcccaatta acacaacaat cctttgcaca tctaaccata 300
caaaccatcg caacgcaaca acaacaagca cttgaccacc taaccgatgt gaaccctatc 360
gactacttgc atcaacagct gcttgcatat aaccacttg ctt 403

<210> 1443

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D10

<400> 1443

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gctccttggc ctttctgcaa gtgctgtac cgcaaccatt tcccacaat gtcacaagc 120
tcctatagct tcctttcttc cccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
ccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
ggcacaaaac atcaaagcac aacaactaca acaacttggg ctaggaaacc ttgctgctta 360
ctctcagcaa cagcagtttc tttcattcaa ccaactggct gcattgaact ttgctgctta 420
tttgcaacaa caactacat tcagtca 447

<210> 1444

<211> 283

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-D11

<400> 1444

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atanggacca agatacgggc cctccttatg ctccttgctc tttctgcatg tgttgctaac 120
gcgacaatat tccctcaatg ctcacaagct cctatagctt cccttcttcc cccatacctt 180

ccatcaatga tagcttcagt atgtgaaaac ccagctcttc aaccctatag gctccaacaa 240
gcaatcgag caaggaacat acctttatca cccttggttc aac 283

<210> 1445

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D12

<400> 1445

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cttccaagac attatgcctc cttgcgcttc ttgccctttt tgtgagtgc acaaatgcgt 120
tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctccctccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcgcttg 240
cggcgagcgt cttagaacia ccaattgccc aattacaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
ctatcgcta cttgcaacia cagctgcttg cattcaacct acttgctttg gcaaacgtag 420
ctgcatacca acaacaacia cagttgcaac ag 452

<210> 1446

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D2

<400> 1446

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gccggctccg ctgccaccgg cgcgactcca cctctgtcgc caccatgggc aagtccaagg 120
ccatcagggt ccacgagctg ggcggccccg aggtgctgag gtgggaggag gtggaggctg 180
gggagccccg tgaaggggag atccgcatca ggaccaccgc cgtcggcgctc aacttcatcg 240
acatctactt tcggaagggg gtctacyccg cgcccaccat gcccttcacc ccaggaatgg 300
aagccgttgg cgtcgtcacc gctgttgggc ctggcctcac tggcaggaag gtgggcatg 360
ttgttgcata tgccggcaac cccatgggct cctatgctca ggagcagatc cttccagcgg 420

ctgtcgct

428

<210> 1447

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D3

<400> 1447

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ggcttgtgct atcagacctg tgctgactac tctcagcaac agcaccatac ttcacattca 120

accaactagc tgcacaaac tctgcttctt atttacaaca tcaacatcta ccattcagac 180

atctacctgc tgcctacca cagcaacttc ttacattcaa ccaactgaca catttgaact 240

atgatcttta tttacagcaa gcaccactta ctacaattca ccaagctact tgttgtaagc 300

cttgcaacct ttttgatcca cccacatttg ttgccatcct acaataacac taagcctaac 360

gctgcccccc ttttacaatt caaccaattg ttgccattta cccaacttcc ttttacaac 420

c 421

<210> 1448

<211> 334

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D4

<400> 1448

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gattatccct ccttgcggtt cttgcccttt ttgtgagcgc atcaaagcg ttcattattc 120

cacaatgctc acttgctcct agtgccatta ttccacagtt cctccaccca gttacttcaa 180

tgggcttcga acacctagct gtgcaagcca acatgcaaca acaagcgctt gctgagcg 240

tcttacaaca accaattgcc caattgcaac aacaatcctt gccacatcta acattacaag 300

ccatcacaac tcatcatcaa catcagtttc tacc 334

<210> 1449

<211> 436

<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-043-Q1-K1-D5

<400> 1449

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 acccgagaa gctgaggaat cagatcttcg acctcaagtt cacctccaag tcgctgcagc 120
 ggcaggcgcg caagtgcgag aaggaggaga aggagcagaa gctcaaggct aagaaggcga 180
 tcgagaaggg caacatggac ggcgcccga tctacgccga gaacgccatc cgcaagcgca 240
 ccgagcacat gaactacctc cgctcgcct ctgcctcga cgccgtcgtg gccgcctcg 300
 acacgcaggc caagatgcag gtcacggca agtccatgca gtccatcgtc aagtcgctcg 360
 actccgcgct cgccaccggg aacctncaga agatgtccga gaccatggac aatttcgagc 420
 gccagttcgt caacat 436

<210> 1450
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D6

<400> 1450

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 ttctagacgt gttggcttca atatgtgaac ctgaccatcc tcagctaag cagttggccg 120
 tgattgtgcg tggacaatat ttctatcaat ggtctgatcc tgtttacatt tattctgcag 180
 atgggggaga aaagagacaa ggctctcaag gagctcatgg accaggtggc catgaagcag 240
 cccaacagca tgtgccatgg aaacaaggat aatttctggg agagccaggg cttcaggttc 300
 attgcctcta tgctgatgct ggcgctagt atcctcgcaa agcggtgaag cggcatagtt 360
 taagcagatg tgaatgtagc gtttacatta gcttgtaagc tcgggcagtt gtgcatactg 420
 catgccaaaa t 431

<210> 1451
 <211> 253
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-D7

<400> 1451

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ccaactgaag cattctaaac atgttggcgt taatatatta acctaaccat cctcaactaa 120
ttcaattctc ctttatattt cctaaacaat atttctatca atcctcttat cctttttaca 180
tttattctac atatctttta aaaattacac atttctctca atcacctcat taaccaatta 240
cctcattaac att 253

<210> 1452

<211> 289

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-D8

<400> 1452

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atattatccc tgtttgcgct tcttgccctt tttgtgagcg caacanatgc gttcattatt 120
ccacaatgct cacttgcctc tagtgccatt attccacagt tccttccttc cagttacttc 180
aatgggcttc gaacaaccaa cttttccagc ctaacagcta caaccagccc cttgcggcga 240
gcgtcttaca acaaccaatt gcccaattac cacaacaatc cttggcaca 289

<210> 1453

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-C4

<400> 1453

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agcatggaca ggaagtgcct cgtggacctc ggccaccgcg tgctcaaccg cgtcgccgac 120
agcttcatcc gcgccgctgg ggtcggggcg gccagggccg tctccaggga ggccctacgtc 180
gtcaccgtcg aagggtcttc aggagactcg tccgggctag acgcgcgacgg cggcaagcgg 240

agccatttct ccagcatcag aggtgacgac ggccagaggt cgctcgacgc agtggtaaaa 300
acggccggca aggaggcctt ccagtggggg ttggcagccg gagtctactc agggctcacg 360
tacgcgctgc gggaggccag gggatgccac gactggaaaa acagcgccat cgcaagcgcc 420
atcgctgggg cggcggt 437

<210> 1454

<211> 240

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-A6

<400> 1454

accaagcctt ccgccaatcc ttccgtagaa ggccattag ttaaccacca atgccagcca 60
aaaaggtttg cttcctaata ctcttaggcc tttctgcaag tgcctctacg gcgaccattt 120
tcccgaatg ctgcgatgct cctatagctt ccttcttcc cccgtacctc ttaccagcgg 180
tgtattcgga atgtgaaaac ccaattctta aaccctacag gttccaacag gcaatcacag 240

<210> 1455

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-A8

<400> 1455

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tttttcaata tgcgcgacga tctctgttac agttctcatt acgaatcatt tctcctacac 120
tgctaacact ctctatagc tcactttttt cccacatacc tcttaciaaac actgtcatca 180
ccatgtcaca acccactact tcattccatac cgcattccact atcaaataca agtacacatc 240
ttacatgtat cagcattcaa catacaacat ccgtcatctc tattctatcc ttaatcaact 300
gtacctttat attctgacta catctataca caacgactac atttacttca gctactaaac 360
ctctcagatt actctaacta acacaatttt tttccattct aac 403

<210> 1456

<211> 251

<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-A9
 <400> 1456

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 gcgaggaggg cccgtcggag ctgtaccgtg ggctgacacc cagcctgac ggctgggtgc 120
 cgtacgcggg ctgtaacttg tacgcctacg agacgctgaa gcggctctac cgttgcgcg 180
 ccggggcggcg ttccggcgcg gacgtggggc ccgtggcgac gctgctcatc ggggccgcgg 240
 cgggcgccat c 251

<210> 1457
 <211> 363
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-B1
 <400> 1457

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 ttttgcttac atatgcgcct tggactttct gcaagtgtg ctacagcgac catttcaccg 120
 caatgctcgc aagctcctat agcttccgtt attccacctt acctctcacc agcgggtgtc 180
 tcgggtatgtg aaaacccaat tctcaaaca tacacgatcc aacaggcaat cacagctgga 240
 atctcacctt tatcagctta gtccatccaa caatcatcat ccttataaca tcagttacct 300
 gtggtgcata tatcggcaca aaacatcggg gcacaacatc tacaacaact tgtgctagca 360
 aac 363

<210> 1458
 <211> 373
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-B11
 <400> 1458

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 ctccttggtc tttctgcaag tgttgctacc gcaaccattt tcccacaatg ctcacaagct 120

cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat gtgtgaaacc 180
ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt accattatca 240
cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt ccatttggtg 300
gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taacaaacct tgcttcatac 360
tctcagcaac atc 373

<210> 1459

<211> 320

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-B12

<400> 1459

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ggctggctta tgctccttgg tctttctgca agtgctgcta ccgcaaccat tttcccacaa 120
tgctcacaag ctctatagc ttcttttctt ccccatacc tctcaccagc ggtgtcttca 180
gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcg agcaggcatc 240
ttacctttat caaccttgtt ctttcaacaa cccgcaggcc tattacagca gttacctttg 300
gtgccattgg tgggacaaaa 320

<210> 1460

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-B2

<400> 1460

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ttttgcctcc ttatgtcctt tggatattct gcaagtgtcg ctacggcgac cattttcccg 120
caatgtcac aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
toggatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctcaa caatcatcag ccctattaca gcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360

aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca aca 443

<210> 1461
<211> 292
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-043-Q1-K1-B3
<400> 1461

caacaagcaa catagaaagt ggaatacagt agcaaaaata gagcaacaat ggcggccagg 60
atattttcca tctgatgct ccttgctctt tctgcatgtg ttgctaacgc caccattttt 120
ccttaatact cacaagcttc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
gctttaatat tgtgaaaccc cagcctttaa cccttccaga tccaacaagc catcgcaacc 240
agcaacttac ctttattaca actgggtcttt taacaattgc caggccctat ct 292

<210> 1462
<211> 342
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-043-Q1-K1-B4
<400> 1462

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cggcacttta taccggtgcy tattctatcc tcatgctcct cactctttct gcatgtgttg 120
ctaactcgac aatatcctat caatgctcac attcttctat agtcccatt atctctgcat 180
accttacatc aatgatagct tcactttatg caaaccttc tcttcatacc tatagcatgc 240
atcaagccat ctctacaagc aacatacctt catcactctt gctgtttaaa caatctgcaa 300
ccctatctat tattcagtca tttattcaaa ccatcacgac tc 342

<210> 1463
<211> 272
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-043-Q1-K1-B5

<400> 1463

cccacgcgtc cggagaccaa caagcaacat agaaagtgga atccagtagc aacagcggag 60
caacaatggc gaccaagata ttttccctcc ttatgctcct tgctctttct gcatgtgttg 120
ctaacgcgac aattttccct taatgctcac aagctcctat agctttcctt ctttccccat 180
accttccatc aatgatagct tcagtatgtg aaaaccacgc tcttcagacc tataggcttc 240
aacaagcgat tgcagcaagc gacatacctt ta 272

<210> 1464

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-B6

<400> 1464

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ccctacagga tccaagaggc aatcgcagct ggcattctac ctttatcacc cttgttcctc 120
caacaatcat cagccctatt acagcagtta cctttggtgc atttattggc aaaaacatc 180
agggcacaac aactacaaca acttgtgcta gcaaaccctg ctgcctactc tcagcaacag 240
cagtttcttc cattcaacca actagctgca ttgaactctg cttcttattt gcaacaacaa 300
caactaccat tcagccagct atctgctgcc taccaccacgc aatttcttcc attcaaccaa 360
ctgacagcat tgaactctcc tgcttattta cagcagcaac aactactacc attcagccag 420
ctagctgggtg tgagccctgc 440

<210> 1465

<211> 291

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-B7

<400> 1465

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ggcagaaagg aaacaaggcc cctccgccag tattccagat gccccttcta gccagaagt 120
gtcagcgaca agtcaagaat cttaacattc cagttgcccc ttctagccaa gatgtgtcag 180

caacaagtca agaatcttgg cagttgtgct tgtcaatata ccgttggtgc cagctacagc 240
 tngcggagat ttctgaagcc tgacattcag ctgtcaacct accgtccgtc t 291

<210> 1466
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-B8

<400> 1466

cagccgtgca agcctacagg ctacaactag cgcttgccgc gagcgcctta acacgaccga 60
 atgccccaat tgaacggcca tcccttgacac catttaacct tccaaccaat ggaacccaac 120
 caccaccacc accagttctt gcattaatta accaacttac ctttgtgaac ctttgcaact 180
 aatttcaaca acaacttggt gcattcaacc caattgctct tgccaaccta actgtatacc 240
 agcaacaaca acagctgcaa cagtttatgc cagtgtcag tcaactatcc atggtgaacc 300
 ctgccgtcta cctacaacta ctttcatcta gcccgctcgc ggtgggcaat gcacctacgt 360
 acctacaaca acagttgctg caacaaattg taccagctct gactcaacta gctgtg 416

<210> 1467
 <211> 379
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-C1

<400> 1467

aagtgcttac ctctgatac gcacagtcac cttccagcag tgtcatgcaa gacttagagt 60
 ctgctaaatc taggaggtct gtctgctggc gctgctccta tcacatatc ttctaccgtg 120
 ctcaactgaca ctgtatgctg tgcacctctt taccagcagc acgatcatga gtcggatgaa 180
 agagatgtgc atcccagact atcgatccat atctgacct actctcgact gcatgtggaa 240
 tctgacctcg ataatcgctg gtaaactgac catgataatc attcttataa catccacatg 300
 tccagtgttt attgactcgc aacatcatgt gctgacatct acgatagctc atgctgacag 360
 aacttgctac ctactctta 379

<210> 1468
 <211> 248
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-C11

 <400> 1468

 ccaagatatt atccctcctt gcgcttcttg cgctttttgc gagcgcaaca aatgcgttcg 60
 ttatgccaca atgctcgctt gctccaagtt ccattattac acagttcctc ccaccagtta 120
 cttcaatggg cttcgaacac ccagctgtgc aagcctataa gctacaacaa gcaattgcgg 180
 cgagcgtctt acaacaacca atttcccagt tgcaacaaca atccttggca catctaacaa 240
 taaaaacc 248

<210> 1469
 <211> 445
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-C12

 <400> 1469

 gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatatt gcctccttat 60
 gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
 tectatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggcaaaaaac atcaaggcac acaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcaacaa cagcagtttc ttccattcaa ccaactaact gcattgaact ctgcttctta 420
 tttgcaacca caacaactac cattc 445

<210> 1470
 <211> 321
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-043-Q1-K1-C2

 <400> 1470

tgagaccaac tagcaacata gaaagcacia tagtgtacca acaatggcag ccaaaatagt 60
 ttgcctcctt atgctgcttg gtctttctgc aagtgtgct acggcgacca ttttcccgca 120
 atgctcgcaa gtcctatag ctcccttct tccccgtac ctctcaccag cgggtgtcttc 180
 ggtatgtgaa aaccaattc ttcaacccta caggatcaa caggcaatcg cagctggcat 240
 cttaccttta tcaccttgt tctccaaca atcatcagcc ctattacaac agttaccttt 300
 ggtgcattta ttggcaccaa a 321

<210> 1471

<211> 347

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-C3

<400> 1471

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 gggttcagcag agaggaattg ttcccttctg caaggggctt gatgtcattc agcaagcaca 120
 atctggtaca ggaaagacag caaccttctg ttctgggatc ttgcagcagc ttgactatgg 180
 tctgggtgaa tgccaggccc tggttcttgc tcccaccgt gagcttgcac agcanattga 240
 gaaagttagt cgcgcacttg gtgactacct tgggtgttaa gtccatgcat gcgttggagg 300
 aacatctgtt cgtgaggccc aaaggattct cgccagtggg gtgcatg 347

<210> 1472

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-043-Q1-K1-A5

<400> 1472

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 ttttgectca ttatgtcctt tggctttct gcaagtgtg ctacggcgag cattttcccg 120
 caatgtcac aagctcctat agcttccctt cttcccccat acctctcacc agcgatgtct 180
 tcagtatgtg aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc 240

atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca taacatcagg gcacaacaac tacaacaact cgtgctagca 360
 aaccttgctg cctactctca gcaacagcag ttacctttgg tgcatttggt ggcacaaaac 420
 atcnaggcac aacaac 436

<210> 1473

<211> 196

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-G7

<400> 1473

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 tcctcggcggg tcttgatgga gctgtacgcc aactatgtgc ccaataccgc tcagaacttt 120
 cgctctctgt gcactgtcca caattgcgtg ctcaatttct ttaagccgct atactacaat 180
 tgctccatct ttctac 196

<210> 1474

<211> 456

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-G8

<400> 1474

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 ctogctgctc tctaggcatg tgttgctaac gcgtcaattc accctcaatg ctcacacgct 120
 cctattgcat tccttctatc ccccatacct tacatcaatg atagctacag tatgtgaaaa 180
 ctgatctctt caaccctata ggctacaaca tgcaatcgta gcaagcagca tacctttatc 240
 actcctagtt tcatcaatcg gcagccctat ctttggtgca gacatagtta cataccatca 300
 aggcacagca gctgcagcaa ctcgagctac ctgtgatcaa ccaagtagct ctggcaaacc 360
 ttactcccta ctatcagcaa caacaatctc ttccattcaa ccaactatct aactgaacc 420
 ctgctgctta tttgcagcaa caactattac cattca 456

<210> 1475
 <211> 311
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-G9

 <400> 1475

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 gttgccctcg ctctcctggc tctcgctgcy agcgccacct ccacgcatac aagcggcggc 120
 tgcggctgcc agccaccgcc gccggttcat ctaccggcgc cgggtgcatct gccaaacttcg 180
 gttcacctgc cacctccggt gcatctccca ccggcggtcc aactgccggc ggcggtccaa 240
 ctgccaccgg cgggccatgt gccggcgggc gggtcatctgc cggcggcacc atgccactac 300
 cctacttaac c 311

<210> 1476
 <211> 356
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-H1

 <400> 1476

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 aacttccgcy cgctgtgcac gggcgagaag ggcgtgtgca agtacgggaa gccgcttcct 120
 acaagggctc caccttcacg gttatccagg gcaatgtgca aggccggcaa cttaaccggc 180
 ggaaccggac ccgcgggcag tccatctacg gcgagaagtt ccccgacgag aagttcgtgc 240
 gcaagcacia ccgccccggt gtgctctcca tggccaacgc cgggcccac accaacggct 300
 tccagttctt catctgcacc gtcgcgaccc cttggctoga cggcaagcac gtcgtc 356

<210> 1477
 <211> 374
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-H10

 <400> 1477

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agcttagcag acagtgcgtg caggacacct gaaggcccga gacctatcgc tgtgcagctt 120
accatcacag agttctaccg ctccaagaaa ggcataacg tataatctgg gaagaagccg 180
gcgggagaag ggcacgccgc gagggaggc tcgagaaaat cttccgacag ggacctcgac 240
aagagcctgc cgaagtctgt tcagcgccgt ctcctcttcg attgctgagg actatgtagc 300
ctggcttttt tttggtgaac actgcactgt aatcttggtg ccactgctgt agatgacctt 360
tggaatgcct taac 374

<210> 1478

<211> 346

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-H11

<400> 1478

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gcctgggtcc gttcctggtt cccttttcag ggttccgatt gctaggctag ctgcagctca 120
ggtccttgcc ttaggctgcc tcctaattgg caaccggttt gcctgcttct ggggaattgg 180
gggtccaccc gtttttttcc cagaccctcc ctttgaaccc ttctctggtc ccagctcttt 240
taagctttcc atccctatgc ctttttttcc ccaacctggt taactttctc actctgctcc 300
acggtttcaa atctgttctt taaaacacca tctcctatca ccgttt 346

<210> 1479

<211> 480

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-H2

<400> 1479

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atccgcgctc ttctctacga cgctgcactc atggcaggaa tggcacacgc ggcttctcag 120
cctgatgcta aacactatga tactacataa tgcgatgatc gctataccac tgatgagact 180
gagctgcact atgctaaaac cgatctattc aaccatagag gctacaacat gcactttcag 240
caggctacat acctagatca ccctgcattc agcaatcgcc agccctatct ttggtgcagt 300

cattggtaca aaccatcaag gcacagcacc tgcagcaact cgtgctacct gtgatcaacc 360
gagtagctct ggcaaaccct tctcggtact atcagcaaca acaatttctt ccattcaacc 420
aactatctac actgaaccct gctgcttatt tgcagtagca actattacca ttcagccagc 480

<210> 1480

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-H3

<400> 1480

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cttgctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc tcctatagct 120
tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa cccaattctt 180
caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc acccttggtc 240
ctccaacaat catcagccct attacaacag ttaccttggg tgcatttatt ggccccaac 300
cttaaggcac caccacctcc accacctggg cctaccaaac ttggttgcta attttaacaa 360
ccacaagttc tttcattcaa cccactaagg tcaatggact ctgcttctta attgcaac 418

<210> 1481

<211> 264

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-H4

<400> 1481

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gtaccaagat attatccctc tttgcgctta ttgccctttt tgtgagcgca acatatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctccctgcaa 180
atacttcaat gggcttcgaa caccctaactg tgcaagccta caggctacaa caagcgctag 240
cagccagcgt gttacaacaa ccaa 264

<210> 1482

<211> 417

<212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-H5

<400> 1482

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 acttttgcca tccttgccct ccttgctctt tcaggaagcg ttgctaccgc gactattatt 120
 ccacaatgct cacaacaata cctctctccg gtgacagccg cgagatttga ataccctaact 180
 atacaatcct acaggctaca agaggccatc gcagcaagca tcttacggtc gttagcattg 240
 accgtccaac aaccatatgc cctattgcaa caaccatcct taatgaatct atatctccaa 300
 agaatcgag cacaacaact acaacaacag ttgcttccaa caatcaatca agtagttgca 360
 gcgaaccttg ctgcttacct ncagcaacaa caatttcttc cattcaatca actagct 417

<210> 1483
 <211> 143
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-H6

<400> 1483

gatccgagct ctccatctac gacgcgttca gtcatggcgg gaatggcacc ctaggtgtct 60
 cagcttgatg ctaagcacta tgatcctaaa atgcatgagc tgctgagcac tgctgagact 120
 gaggaagtcc tcactttata tga 143

<210> 1484
 <211> 369
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-H7

<400> 1484

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 ggtccacggg gatattgcaa gtgcttatac tgcttactat ttttgcatgt ggcgctaacy 120
 ctactatagt tcctcaatgc tcacaagctc ctatagctac ccttcttccc ccataccttc 180

catcaatgat agcttcagta tgtgaaaacc cagctcttca gccctatagg ctccaacaag 240
 caatcgcagc aagcaacata cctttatcac ccttggtggt tcaaccattg gccagcccta 300
 tctttggtgc agtcattggt acaaaccatc anggacatc agctgcagca actcgtgcta 360
 cctgtgatc 369

<210> 1485
 <211> 333
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-A1

<400> 1485

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 ggctgcattg aactctgctg cttatttgca acaacaacta ccattcagtc agctagctgc 180
 tgcctacccc cagcaatttc ttccattcaa ccaactggca gcattgaact ctgctgctta 240
 ttacaacag caacagctac caccattcag ccagctagct gatgtgagcc ctgttgcctt 300
 cttgacacaa caacagttgt tgccgttcta cct 333

<210> 1486
 <211> 251
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-043-Q1-K1-A11

<400> 1486

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 ctccagcggc gacgcccagg cccagcaccg gttcctcgccg ctccctgggccc cgccgctgcc 120
 gccggtcacc gaggcggcgg agccctccgg ggaggaggag gcgccgccgg atgaggcgct 180
 cgacggcaag gaggcggcgc accacgcgag gacgggtgtgc gccagccgc cgcggcgggc 240
 catgtcggag a 251

<210> 1487
 <211> 331

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-A2
 <400> 1487
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 aggtctacac atactcggct agtactatga gccagagcag cttacagacc tcaaccacct 120
 ctgtgttcat aaattccgat cgcttctgct actgcaccta ccttcctacc agctctgtgc 180
 tagctacca tagcactaac tgtcattcaa catgctgtta gaaacgatgt agcctactta 240
 aaagcgacag tttcatgaaa ccccatgact ctgacaaact gtggtgtaca cctactacat 300
 cgactacaaa gattcactcc agagatagtg g 331

<210> 1488
 <211> 400
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-043-Q1-K1-A4
 <400> 1488
 gtgagcgacc gctccggcgc ggcgcccata cattcatcgg catcctctag cccagtcagg 60
 aggtacccta accatgagcg ccgactacaa gaagctgctg caggccgtca ggtccctcgt 120
 cctctccgct tctaaccgat ccgttctagt cgtcgagggc cgcaccgacg agctcggcac 180
 gctcaacaac tttggcagga agaccttcat caccgtctac ttatcctacc acacgcaggg 240
 atcccacat gccgagtcgg agtggggagc catcgccgcc gcagtctaag ctgcagtcca 300
 catgctcgag gaccagcagg ctcatgctgc acagatcgag cgcaccttca ttgccatcaa 360
 gcctgatggt gtgcagagag gcctgatatc tgagattatg 400

<210> 1489
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-042-Q1-K1-G6
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 agtgcttgcg cagcaacgcc taggacatcg ctttcatcaa gtaccgttga agaggccact 240
 gtgctgctgt ggagaacttc ctacatcaaa gaaatggctc cttcattaga aggcctaatt 300
 tatgcgctat agctttttgc tcagaacttg agactcatgt gttaaactcg acttggttaa 360
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 actc 424

<210> 1490
 <211> 360
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-B2
 <400> 1490

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 tcgcatacaa tcacaggctg cacaatgtac tacaattcac gcagatcatt tacgtgagcc 180
 ctggtacctt cttgacacag ccacagtgtg tagccgttct accagcacgc tgcgccctaac 240
 gcttgacccc tcttacaact gcaacaattg ctgtcattga accaacttgc tttgacaaac 300
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<210> 1491
 <211> 387
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-B3
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 cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggg atgtgaaaac 180
 ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt acctttatca 240

cccttggtcc tccaacaatc atcagcccta ttacaacagt tacctttggt gcattttattg 300
gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaacct tgctgcctac 360
tctcagcaac agcagtttct tccattc 387

<210> 1492

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B4

<400> 1492

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ttgatgtgtc tggtattaaa aggatggaag attaccggga acctgtaagg cctcaatcag 180
ctttccaggg tggtggaaga acccttggtg gtggaccttc ccagatgag agtgcaacac 240
ctgctcctgc accaacggcc cctgctgctt cgagggtccgc tggcatagtc gtggatgact 300
cccagccatt tacatccata cagctgaggc tggctgatgg cactcgcatg gtcgccccgt 360
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<210> 1493

<211> 302

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B6

<400> 1493

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atacactatt agagacatat tatttagcat agattatcac acgaggacca ttcgtgtaca 120
tgcttatctc acacacatga tacgtcacac gtacgggcac atcccggcgg cagccgctca 180
ctggtactgt ccgccggtgc cgtgcgcctg caagaagtcg ctgccgacaa gcgggttgtg 240
ctcggctctg ggccgagccg tgccagtgcc cttagcgact ggactggtct tgcttacacc 300
gg 302

<210> 1494
 <211> 381
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B7

<400> 1494

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tcttaccagc ttctcctata cttctaacca gttgcgtctt caatctgtga taacccccat 180
cttcaacact acatgtctca acatgcgctc aactcagca tattacccat atcacactct 240
gccgtctaac taccgcaaca cctattactg taatctactc cggatcatgt gttcactcca 300
aatacatagc tgcaacaact attgctgcta gagcttgac cacctgtgac tcaactatca 360
tgagcaaacc ctgttgcata c 381

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<210> 1495
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B8

<400> 1495

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ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa gtagctctgg 180
caaacctttc tccctactat cagcaacaac aatttcttcc attcaaccaa ctatctacac 240
tgaaccctgc tgcttatttg cagcaacaac tattaccatt cagccagcta gctactgcct 300
actctcatca acaacaactt cttccattta accaattggc cgcactgaac ctgctgctt 360
atttgcagca gcaaatatta ctaccattta gccagctagc tgcagcaagc cgtgcttcct 420
tcttgacac 429

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<210> 1496
 <211> 388
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B9

<400> 1496

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gcgccttggt ctttctgcaa gtgttgctac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccatacct ctaccagcg gtgtcttcaa tgtgtgaaac 180
cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccattatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tccatttggt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 360
ctctcagcaa catcagtttc ttccattc 388

<210> 1497

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C1

<400> 1497

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gcgcgggcagc aacaacagtt cctaccagca ctgagccacc tagccatggt gaaccctgcc 120
gcctacttgc aagagcagct gcttgcatcc aaccacttg ctctggcgaa cgtagttgca 180
aaccagcaac aacaacagct acaacagttt ctgccaacgc tcagtcaact agccatggtg 240
aaccctgccg cctacgtaca acaacaacia ctgctttcat ctagcccgct cgctgtgggc 300
aatgcacctt catacctgca acaacaattg ttgcaacaga ttgtaccagc tctgactcaa 360
ctagctgtgg caaaccctgt tgcctacttg caacagctgg cttcattcaa ccaactgact 420
ctgtcgaact ctgctgcgt 439

<210> 1498

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C10

<400> 1498

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 tacatttcca gattttaaaa aaaaaaaaaa ataattaaac taaaaaataa atataaataa 120
 aaaaaaaaaa aaaaaaatat aaaataaaaa aataaaaaaa ctaatataaa taaaaataaa 180
 aaaaaacata aataaaataa aatgggagct tctttatgag aaaacaaatt ttttcaatca 240
 tatatgcttc aacaagcttt tttatcaggc accataaatt tatcgccctt gctgttttaa 300
 caatagccat ccctagaaaa accgctggca ttgctacata taatc 345

<210> 1499
 <211> 422
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-C11
 <400> 1499

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 gttgctaacg cgacaatttt ccttcaatgc tcacaagctc ctatagcttc ctttcttccc 180
 ccataccttc catcaattat agcttcaata tgtgaaaacc cagctcttca accatatagg 240
 cttcaacaag caatcgcagc aagcaacata cttttatcgc cttgttggt tcaacaatcg 300
 ccagccctat ctttggtgca gtcattggta caaacatca gggcacaaca gctgcagcaa 360
 ctctgtctac ctctgatcaa ccaagtagct cttgcaaacc tttcttcta ctctcagcaa 420
 ca 422

<210> 1500
 <211> 405
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-025-Q1-K1-C12
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gcttccttct gtccccata cctgtcacca gcgctgtctt caatatgtga aatcccaatt 180
 cttcaaccct acaggatcca acatgctatc ccagcatgca tcttaccttc atcacccttg 240
 ttcttgcaac atccgtcagc cctattacag cagttacctt tgggtgcatth gttgtcacat 300
 agcattacgg cacaacatct acatcaactc gtgctaggaa acettgctgc ctactctcag 360
 caacagcagc ttcttncatg caaccaactg gctgcattga actct 405

<210> 1501

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C2

<400> 1501

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 cttcttcccc cgtacctctc accagcgggtg tcttcggtat gtgaaaaccc aattcttcaa 180
 ccctacagga tccaacaggc aatcacagct ggcattctac ctttatcacc cttgttcctt 240
 caacaatcat cagccctatt acatcagtta cctctgggtgc atttattggc acaaaacatc 300
 agggcacaac atctacaaca acttgtgcta gcaaaccctg ctgcctactc tcagcaacag 360
 cagtttcttc cattcaacca actagctgca ttgaactct 399

<210> 1502

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C3

<400> 1502

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 atcggctgat gcacgggccc aagcagatat aaaatttact tatgttggtt cttgccaaat 120
 atatggacta cagaagcaaa caaaaaaaca agaggctgca gatattgctc tctactgca 180
 aagaaatgag gctcttcggg ttgctttcat acacgaagag gaaatcatat caagggatgg 240
 taaggctaca acaagagagt attattccaa gcttgtgaag gctgatgttc atggcaaaga 300

ccaagaaata tactgcatta aattgcctgg gaacccaag cttggtgaag gcaaacctga 360
gaacaaaaac catgccataa tct 383

<210> 1503
<211> 302
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C4

<400> 1503

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tgtggagacc acaaacatcc ttctggatga gaactgggat gccaaagttt cagatttccg 120
tgtgtccaag actggcctat ttatgggtcca tacttatgtg agcacagggtg gcacaggcag 180
catcagcttc ctctatcctg actactttga gatgctgccg ctcacagatc aggctgatgt 240
atactctttc ggtgttgagc tgattgagga cctctgcgca ccggctgtgc ttgaacccta 300
ct 302

<210> 1504
<211> 387
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C5

<400> 1504

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tccacaatgc tcaattgctc ctagtccat tattccacag ttgctcccac cagttactta 180
aatggccttc gaacaccag ctgtgcaagc ctataggcta caacaagcga ttgcggcgag 240
cgtcttacia caaccaattg cccaattgca acaacaatcc ttggcacatc taacaatata 300
aactattgca acgcaacagc aacagcagtt cctaccagca ctgagccacc tagccatgg 360
gaaccctgtc gtctacttgc aacagca 387

<210> 1505
<211> 280
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-C6

<400> 1505

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cgttcactaa ttctcacagc ccacttacta catcttgctc tatgaacctg acaactcaaa 180

cattcaaacc tacaggatcc acaacaggat catacctaac attctgctct acaacaagcc 240

tattgctcct aacctcatac accttccgaa tacagacacc 280

<210> 1506

<211> 432

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-025-Q1-K1-B12

<400> 1506

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tgccctcctt atgtctcctt ctctttctac atgtgttgct aacgcgacaa ttttcctca 120

atgtcacaa gtcctatag cttcccttct tccccatac cttccatcaa ttatagcttc 180

agtatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg cagcaagcaa 240

cataccttta tcgcccttgt tgtttcaaca atcaccagcc ctatctttgg tgcagtcatt 300

ggtacaaacc atcagggcac aacagctgca gcaactcgtg ctacctgtga tcaaccaagt 360

agctctggca aacctttctc cctactctca gcaacaacaa tntcttccat tcaaccaact 420

gtctacactg aa 432

<210> 1507

<211> 261

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H8

<400> 1507

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cttgatatcc gctggcacga gcttagcccg tatgtgtcag aatttgtgct gcttgagtcc 120
aattcaactt ttaccggcat aaagaaggac cttcacttca aggaaaaccg ccaacggttt 180
ggctttgcag agtcacggtt gacctatggc atgatagggtg gaaggtttgt gaagggagag 240
aaccatttg tcgaggagtc g 261

<210> 1508

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H9

<400> 1508

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ggcagcattg aactctcctg cttatttaca gcagcaacaa ctactaccat tcagccagct 180
agctgggtgtg agccctgcta ctttcttgat acaaccacag ttgttgccgt tctaccagca 240
cgctgcgcct aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact 300
tgctttgaca aaccagcag cgttctacca acaaccctac attggtgggtg ccctctctta 360
gatttcttat gagttatagt tcaataataa agttctttgt ctgatgtttg tggcttccca 420
gaaata 426

<210> 1509

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-A1

<400> 1509

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gggccagtgc gtcgagttcc tgaggcatca gtgcagcccg acggcgacgc cctactgctc 180
gcctcagtgc cagtcgttgc ggcagcagtg ttgccagcag ctcaggcagg tggagccgca 240
gcaccggtac caggcgatct tcggcttggt cctccagtcc atcctgcagc agcagccgca 300

aagcggtcag gtcgcggggc tgttggcggc gcagatagcg cagcaactga cggcgatgtg 360
cggcctgcag cagacgactt catgccccta cgct 394

<210> 1510
<211> 420
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-A10

<400> 1510

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gcggggttca aggggggtctg catgtccgac cacaactgcg cgcaggtgtg cttgcaggag 180
ggctacggcg gcggcaactg cgacggcatc atgcgccagt gcaagtgcac caggagatgc 240
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aggatcgacg tcgtggccgg tcgctaaata tgtactacta tacgtctaca ctacatgcaa 360
taatgcacca catgtacgcg tacgcgcgcc gagctgtgtg gacgccgcat ctagcatgca 420

<210> 1511
<211> 388
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-A11

<400> 1511

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tcccagttgc aacaacaatc cttggcacat ctaacaatac aaaccatcgc aacgcaacag 180
caacaacaat tctaccagc actgagccac ctagccatgg tgaaccctgc cgactacttg 240
caacagcagt tgcttgcatc aaaccactt gctctggcaa acgtagtgtc aaaccagcca 300
caacaacagc tgcaacagtt tctgccagcg ctcaagtcaac tagccatggg gaaccctgcc 360
gtctacctac aacagcaaca actgcttt 388

<210> 1512
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
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<400> 1512

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agcctgtcca gtatggcat gcagcctgct cttgtttcaa atccatttgg gatgcttcca  180
gcaatgcctc agatgtccat cgggaatggt ggatcttcac cttcagttca atatggaata  240
tcaagtttgc cggttgcgga gaagcctctt ccaagtagat cattgtccat ggcggttcct  300
agacatttgt cacagagaag gataaaactg ctgccaagaa aatataatcc aatatctgat  360
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tttt                                         424

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<210> 1513
 <211> 406
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-A2

<400> 1513

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cgtccacgac ttctgttcca aatctggcaa aaatgtcctt attgaattct atgccccctg  180
gtgcggacac tgcaagaagc tggcgcccat cttggacgag gcagccacca ctctccagag  240
cgacgaggaa gtcgtgattg ctaagatgga cgcgactgcc aatgacgttc ccagtgaagt  300
tgacgtccaa ggctaccga ccttgtactt cgtgaccccg agcggaagg tgacatccta  360
cgacagcggc aggacggcgg acgacatcgt cgacttcata aagaag                    406

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<210> 1514
 <211> 395
 <212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-025-Q1-K1-A3

<400> 1514

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ggtggaggtg ccggcggagc tgggtggcggc gggcagccgg acgccgtcgc ccaagacgaa 180
ggcgtcgcag ctcgtggggc gctttctggc cgcgccgag ccggccgtgt ccgtgcagct 240
cggcgaccac ggccacctcg cctactccca caccaaccag gcgctcctac gncccaggtc 300
gttcgcggtc aaggacgagg tgttctgcct gttcgaaggg gtgctggaca acctgggtcg 360
gctgatccag cagcactggc tgtcaagcaa gggcg 395
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<210> 1515
 <211> 150
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-A5

<400> 1515

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attttagtagga ccaactatta ccattcagac 150
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<210> 1516
 <211> 379
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-A6

<400> 1516

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ctaattttta tgtcaaaaga acccgagca ggggagactg ggagatacag agaggagagg 120
gagggtttcc tcaaagagac ccaaaccxaa gcagagaaca ctagcgttcc ctcaccaggg 180
cgtccatccc agcagccatg gcgatggcgt acaagatggc gacggagggg atgaacgtga 240
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aagaggagtg ccagcgctgg ttcattggaga tgaagtggaa gaaggtgcac cgcttcgtgg 300
 tgtacacgat cgacgagcgg tcgcgcgccg tgctggtgga caaggtgggc ggccccggcg 360
 aagggtacga ggagctcgt 379

<210> 1517
 <211> 421
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-A7
 <400> 1517

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 gaagggagaa gaacccaag ttcattgcac aggtcgcagt gggtttcgac aaagaggaca 360
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 c 421

<210> 1518
 <211> 418
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-025-Q1-K1-A8
 <400> 1518

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 atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc cctgctacct 180
 tcttgacaca accacagttg ttgccgttct accagcacgc tgcgcctaac gctggcaccc 240
 tcttacaact gcaacaattg ctgccattca accaacttgc tttgacaaac ctagcagtgt 300
 tctaccaaca acccatcatt ggtgggtgcc tcttttagat ttcttatgag ttatagttca 360

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<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-A9

<400> 1519

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tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120

tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat gatagcttca 180

gtatgtgaaa acccagctct tcaaccctat aggctccaac aagcaatcgc agcaagcaac 240

atacctttat cacccttgtt tcaacaatcg ccagccctat ctttggtgca gtcattggta 300

caaaccatca aggcacagca gctgcagcaa ctctgtctac ctgtgatcaa ccaagtagct 360

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<210> 1520

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-025-Q1-K1-B10

<400> 1520

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gggaatggcg ccggcgggga caccagggcg gccttcgcgc ggatctacaa gacgctcaag 180

gaggagctgc tcaccgaccc ggccttcgag ttcaccgagg agtcacgcca gtggatcgac 240

cgcattggtt actacaatgt actcggaggc aagtgttaacc gtgggctctc tgtggctcgac 300

agctacaagc tgctcaaggc cgctgatgct ctgggcgagg aggaaacgtt ccttgcttgc 360

accctcggct ggtgcattga atggcttcag gctntctnnt ctgtgcttga tgatatcatg 420

gatg 424

<210> 1521
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-025-Q1-K1-B11

<400> 1521

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aaccaattgg ccgcactgaa ccccgctgct tatttgcagc agcaaatact actgccattt 180
agcgagctag ctgcagcaag tcgtgcttcc ttcttgacac agcaacagtt gctgcctttc 240
tacaagcagt ttgcggctaa ccccgcaacc ctcttacaac tacaacaatt gttgcccttt 300
gtccaacttg ctttgacaaa ccagcagcc ttctaccaac aacacatcat tgggtggtgcc 360
ctctttttaga ttgattatta gttggaattc aataataaag ttttttggat g 411
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<210> 1522
 <211> 263
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H7

<400> 1522

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cacctacatt acacctcttc ttttaacaat actcagacat atttttcttg catatattcg 180
tacaatccat tactacataa cacattcaac aactattact accatttatc atccaactca 240
ttatcactaa cctttaccct cta 263
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<210> 1523
 <211> 212
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F8

<400> 1523

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ttcaaccgct ggaccttcga tgatgtccag gtgaacgaca tatcgctgaa agactacctc 180
gttgatgaacg cgacgaagct cgcacagtac ct 212

<210> 1524

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F9

<400> 1524

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gagagagaga gagaggaggg aaaatgctgc gccacgccgc ccgccgcctc gtttcccgcg 120
ccgtcgtctcc gccaccgcg cgcggggcgc tcgccacggc ggaggtgccc gcggaggccg 180
tcgaggactc cacgttcgtc gaggcctgga aaaaggctgc cccaacatc gagccccag 240
cgacgccct ctccctcatg cagccgcgcc cgcacgcc agctaccatc cctaccaagc 300
tcaccgtcaa cttcgtcctc ccctacaagt ccgagatcgc caacaaggag gttgacatgg 360
taattgtacc agctacaact ggtcagatgg gtgttttgcc aggccatgtt gccacaattg 420
cagagc 426

<210> 1525

<211> 266

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G1

<400> 1525

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taccattcag ccagctagtt gctgcctacc ccagcaatt acttccattc aaccaactag 180
catcattgaa ctctgctgct tatttacagc atcaacaact actaccattc agccagctag 240
ctgatgtgag ccctgctgcc ttcttg 266

<210> 1526
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G10

<400> 1526

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cccacgcgtc cgggtgctccc ccaacgctac taccgccgct agctgggttca agtgcgggga    60
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caagtgcggg tgcgccgtgc cgtgccccgg cggcaaagac tgcaggtgca cgtcggggag   180
cggcgggcag cgggagcaca cgacttgccg ctgcggggag cactgcgagt gcagcccgtg   240
cacgtgtggc cggggccacga tgccgtccgg ccgcgagaac aggagggcta actgctcctg   300
cggggcgctc tgcaactgcg catcctgcgc ctcggcctga tccgtgcgcc tcgccctcgt   360
gctaccgcgc tgcctagtgg agggagttgt ctagtgaggc tggagacgaa gcaactagca   420
ctactt                                         426
  
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<210> 1527
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G12

<400> 1527

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cgggctcgag ggctcggatg agtcggagta ctctcggat gaggaggact cggacggcgg   180
tgaggacgag gatgacgacg acgacggcga cgacgacgac gacggtggcg acggcgacag   240
tgacggcagc agcagctgcg gcggcagcat cggcagctac tggagcaagg gcagcaccag   300
aggccgcagc aacatgggca gcaccaagcg ctgcggcggc agcagaagca gcacggccag   360
tggctaaacg ccactgggtc ctagatatta gtgtaatgta attagaataa tgtagtagta   420
atgtaaaacta gtatagtgt                                         439
  
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<210> 1528

<211> 243
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-G2

 <400> 1528

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 tcaaccgctg gaccttatat gatgtacaga acaactacat ctatctgaac cactacctac 180
 ttctaaactc gaccaagcac gctacgtacc tgccgcacac cttgttgctt cactaacaga 240
 agc 243

<210> 1529
 <211> 258
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-G3

 <400> 1529

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 ggtggacacc caaatccagt gggtcaggca gctgctcccc tccgtgtgcg ggaaggattg 120
 caagaactac ctgtccaagt ccctgttcgt ggtgggagag ttcggcgga acgactacaa 180
 cgcggcgctc ttctcggggc ggtccatggc ggaggtgaga gggtagctgc ccatggtggt 240
 gagcaagctc gtccgcgg 258

<210> 1530
 <211> 267
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-G4

 <400> 1530

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 cggccaagat attctccatc cttatgctcc ttgctctttc tgcattgtgtt gctaacgcga 120
 ccatttttcc tcaataactca cacgctccta tagcttccct tcttcccga taccttccat 180

caatgaccgc ttcagtttgc gaaaacccaa cccttcaacc gtacatgctc caacaagcaa 240
tctcaacatg caacattacg ctttatac 267

<210> 1531
<211> 258
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G5

<400> 1531

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tccttatgct ccttgggtctt tctgcaagtg ctgctactgc gaccatttta ccgcaatgct 120
cacatgctcc tataacttcc cttcttcccc cgtacctctc accagcggcg actacagtat 180
gtgaaaaccc aattcttcaa ccatacagga tccaacaggc aatcacagct tgcattctac 240
ctttatcacc cttgttcc 258

<210> 1532
<211> 278
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G6

<400> 1532

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tgactgcgca acatctatca actggctata atctacttca gtttgtattc tatgctactg 120
ttcaacgcca ccattttttg ctcatcatcat cccattgctc ctatatcata cccttctgct 180
tatatacatc ttcacatc tctactcaa gtgtcctaaa tacctacaac attcaaccgt 240
atactctttg acaagcaata gctgcattgc aacttacc 278

<210> 1533
<211> 269
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G8

<400> 1533

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 gcagcagcaa atattactac catttagcca gctagctgca gcaagccgtg cttccttctt 180
 gacacaacaa cagttgctgc ctttctacca acaatttggg gataaccccg caaccctctt 240
 acaacttacc tccattggtg gcccttttt 269

<210> 1534

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-G9

<400> 1534

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 attgttccag gaggcggtgc agcatatggt catctatcga cattcgtacc ggctatcaag 180
 gagacgttgg atgatcctga ggagcgccta ggtgctgata tcattcagaa ggctttggtg 240
 gcacctgcag cgctgatagc ccataatgct ggggtggaag gtgaggtgat tgtggataaa 300
 atccgggaaa gcgagcggga gttcggttac aacgccatgg cggacaagca cgagaacctg 360
 gtggaggctg gtgtgatcga ccctgccaaa gtgactaggt gcgccctgca gaacgct 417

<210> 1535

<211> 267

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H1

<400> 1535

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 cacaatgctc acttgctcct agttccatta ttccacagtt cctcccacca gttacttcaa 180
 tggccttcga acaccagct gtgcaagcct ataggctaca acaagcgatt gcggcgagcg 240
 tcttacaaca accaattgct ccaattg 267

<210> 1536
 <211> 332
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H10

<400> 1536

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 tgcacgctat gcctaacgct ggcacctctt tacaactgca acaattgctg ccattcaacc 180
 aacttgcttt gacaaacca acagtgttct accaacaacc catcattggg ggtgccctct 240
 tttagattgc ttatgagtta tagttcaata atgaagtttt ttggatgatg tttgtggcgt 300
 cccagaaata agaaagtaca tttctagatt ct 332

<210> 1537
 <211> 389
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H11

<400> 1537

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 aggccttcag atgctcaaga tattcaagga tcatgtcagc aaaacttcca tcctcgacga 120
 ctttgccttc tatgagagcc gccagaagtt gatgcaggat aagaggcca aacagcagca 180
 gtcctaaaag caggtctggg aactaggac ccccgtttct gtcaccggg aacgaccaca 240
 ggaacctgct aatgggaagc ccaatccgtc cgtaccagat ggtgtcacgg cagaggtgaa 300
 ggcgggtgaag gctcccgag agaacggcat cactgctcct gttgtttcct atgcagcaaa 360
 ggtggcccag acagcaccag agaaacccg 389

<210> 1538
 <211> 438
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-024-Q1-K1-H12

<400> 1538

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aagattttttg cgatccgggc cctccttgct ctttcagcaa gcgttgctac cgcgactatt 120
attccacaat gtcacaaca atacctctct ccggtgacag ccgcgagatt tgaataccca 180
actatacaat cctacaggct acaagaggcc atcgagcaa gcatcttacg gtcgttagca 240
ttgaccgtcc aacaaccata tgccctattg caacaaccat ccttaatgaa tctatatctc 300
caaagaatcg cagcacaaca actacaacaa cagttgcttc caacaatcaa tcaagtagtt 360
gcagcgaacc ttgctgctta cctncagcaa caacaatttc ttccattcaa tcaactagct 420
ggggtgaacc ctgctgct 438

<210> 1539

<211> 268

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H2

<400> 1539

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acgacaccat gccactaccc tactcaaccg ccccggcctc agcctcatcc ccagccacac 180
ccatgcccggt gccaacagcc gcatccaagc ccgtgccagc tgcagggaac ctgcggcggt 240
ggcagcacc ccatcctggg ccagtgcg 268

<210> 1540

<211> 264

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H3

<400> 1540

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tgaaaaccca gcccttcaac cctacaggat ccagcaagca atcgcaacaa gcaacttacc 120
tttatcacac ctgttctttc aacaatcgcc agccctatct ttggtgcagt cattggtaca 180

aaccatcagg gcagaacagt tgcagcaact cgtgctacca gtgatcagcc aagtagctct 240
ggcaaaccctt tccccctact ctca 264

<210> 1541

<211> 253

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H4

<400> 1541

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aggtacaatg gctacgatga tattatccct ccttgcgctt cttgcgcttt ttgctagcgc 120
aacacatgcg atcattattc cacattgctc actagcttca atttacggta ttccgcagac 180
ggtttgacta tgcacagtca cggtcgacct atagcatgat aggcgagccg attgtctacg 240
gcgagcactc gtt 253

<210> 1542

<211> 263

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-H6

<400> 1542

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cagcatgggt tgactaatcc tacgacctta ttgcaacctc ccaccattgg tgggtgccatc 120
ttctagatct tatacgatta atactgtaat aatcaaactc tcatgctgat atgtgcgacc 180
tctcaataat aaagcattaa agatctatat tttaaaacac acatctatgc aagcttatac 240
gctacaacaa gcaatatggg cg 263

<210> 1543

<211> 263

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F7

<400> 1543

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acaacaacaa ctaccattca gccagctacc tgctgcctac cccagcaat ttcttccatt 120
caaccaactg gcagcattga actctcctgc ttatttacag cagcaacaac tactaccatt 180
cagccagcta gctgggtgtga gccctgctac cttcttgata caaccacagt tgctgccgtt 240
ctaccagcac gctgaagcct aac 263

<210> 1544

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F1

<400> 1544

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gttgtgggttc ttgcgtttca ttgctttagt atcaagtgtt tcttgtagac agacaggcgg 120
ctgcagctgt ggtcaacaac aaagccatga gcagcaacat catccacaac aacatcatcc 180
acaaaaacaa caacatcaac caccaccaca acatcaccag cagcagcaac accaacaaca 240
acaagttcac atgcaccccc aaaaccttaa gcaccaccag aaggtcattg tcaaccacca 300
cccacaccaa cggaagaacc acaaccacca ccaccaccac cggaccacc accaccttca 360
tggtaaaggc caccaccacc ttaccacca ttaccaaggc cttttccaca accccaaccg 420
agcccttagc cacac 435

<210> 1545

<211> 137

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F10

<400> 1545

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gcaatgtgca gccatcaacg cgcccgtgt acacctacta cagagattgc cctggggcca 120
cactctgata cacaccc 137

<210> 1546
 <211> 311
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F12

<400> 1546

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 cccctgcgcg gggctgcagg gcttgtacgg cgctggcgcc ggcctgacga cgatgatggg 120
 cgccggcggg ctgtaccctt acgcggagta cctgaggcag ccgcagtga gcccgctggc 180
 ggcggcgccc tactacgccg ggtgtgggca gacgagcgcc atgtaccagc cgctccggca 240
 acagtgtctg cagcagcaga tgaggatgat ggacgtgcag tccgtcgcgc agcagctgca 300
 gatgatgatg c 311

<210> 1547
 <211> 393
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F2

<400> 1547

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 cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttgc atcaatgacc 180
 gcttcagttt gtgaaaaccc agccgttcaa ccctacaggc tccaacaagc aatcgagca 240
 agcaacttac ctttatcacc cgtgcacttt caacaatgc cagtcctatc tttgggtgcag 300
 tcattgtctac aaaccatcag ggcacagcag ctgtatcaac tcgtgctacc agtgatcagt 360
 caagtagctc tggcaaacct tgctccctac tct 393

<210> 1548
 <211> 220
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F3

<400> 1548

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ccatgtgctc tgagatcctt cctgctcgac cgcccggtgcc cgtcgactcg tcgttcttgc 120
cggccgcgcc tcaccttcga cctctccttc tacaggggga tcggatacgc cacaggctgc 180
acgacgggtgc tgtgggtctt cggctactgc tccctcatct 220

<210> 1549

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F4

<400> 1549

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ctacggcgac cattttcccg caatgctcgc aagctcctat agcttccctt cttccccctg 120
acctctcacc agcgggtgtc tcggtatgtg aaaacccaat tcttcaacct tacaggatcc 180
aacaggcaat cgcagctggc atcttacctt taccacctt gttcctccaa caatcatcag 240
ccctattaca acagttacct ttggtgcatt tattggcaca aaacatcagg gcacaacaac 300
tacaacaact tgtgctagca aaccttgctg tctactctca gcaacagcag cttcttccat 360
tcaaccaact atgttcattg aactctgctt cttatttgca ac 402

<210> 1550

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F5

<400> 1550

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aatctgcaac atgaattatc taactccaaa aaccatgaag ctggtgcttg tggttcttgc 120
tttcattgct ttagtatcaa gtgtttcttg tacacagaca ggcggctgca gctgtggtca 180
acaacaaagc catgagcagc aacatcatcc acaacaacat catccacaaa aacaacaaca 240
tcaaccacca ccacaacatc accagcagca gcaacaccaa caacaacaag ttcacatgca 300
accacaaaaa catcagcaac aacaagaagt tcatgttcaa caacaacaac aacaaccgca 360

gcaccaccac caacaacaac aacaacagca ccaacaacaa catcaatgtg aaggccaaca 420
acaacatcac 430

<210> 1551

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F6

<400> 1551

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agctagcaac aatgggctga cgcgacatta tgcgtccatg cgctcacagc gctcactggg 120
agtgcagcac atgcattcat cagtccacaa tgctaactac gttccaagtg ctattatcac 180
acagctgctc aatccaatta cttacatgag gtgctaacac ccagctgtgc aagcctatcc 240
gctgcaacaa gcgctcgccg atagcgtggtt agaacaacca ttcgccccat tacaacagca 300
atgcttggca catctaacca taaaaccat gggaacgcaa tagcatcatg cgctgagcca 360
cctagccgat gcgaacccta tggcctactt gcaacaacag ctgatcgcat acaaccact 420
tgctttggca aac 433

<210> 1552

<211> 308

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-F7

<400> 1552

aaaaataata attaaaataa aataaatata aaaaaataaa tataaaaaaa caataattaa 60
taaattcaaa ataaaaaata aacatatata ataaaacaac tataaataaa taaaataaaa 120
atatataaat aatatataaa aaaattaaaa aaaaaaatat aatataaaaa aaaaaataa 180
taaataattat aaaaataatt attttaaata taaaataaaa taataaaaat aaaaaaatat 240
aattataata taaaaaatta taaataataa aatataaaat atatatataa ataaaaaaa 300
tacataat 308

<210> 1553
 <211> 166
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-G1

<400> 1553

attttgagca ttcagaaaca caccaagcga agcacattag caacaacgta acaacaatgg 60
 ctaccaagat atgatccctc cttgcgcttc ttgcgctttt tgcgagcgca acanatgcgt 120
 tcattattcc acaatgctca cttgctccaa gttccattat tacaca 166

<210> 1554
 <211> 380
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-G10

<400> 1554

gacgaaatcg caaggatggg gaaggactcg gaggggtgacg tgaggtacct gatagagagc 60
 atccaccatc gtcgcatctc gcggaagaag gtggcagaga agtctcgcaa ttcagtaccg 120
 tcaagctccc agggtagtag agccgcaag ccaaggccgt tccccgtgcc tgatgggata 180
 ccgaaaacgc aagaagagct cgctgaagaa gaagaggcgt tgatgccgga gtctccgtac 240
 acgaggctgc tgagaaggat gggaaggtag cctgattggg acaccccacg cctgatcat 300
 gagaccgact gaatcgagtt gccaccatc ctagtgtccc ttgtgggagt ttttggagca 360
 tggtaatctg aagctccttt 380

<210> 1555
 <211> 300
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-G11

<400> 1555

ggcggggggg gcggcgctgt gctttgcggg cctgttgagg ccggccgtct gccaaagcga 60
 ggtctagcgg cagaagctca tggaccgcga gtgctgtcag caggccacc agagcccgct 120

cgacgcgtgc cgccagctcc tcgaccggca gctaaccagc ggcggcggcg gcggcggcgt 180
 tggcccgtc ctgtggggca cccagctccc tatgcagtgc tgccagcagc tccatgacgt 240
 gagccgccag tgccgctgcg ccgccatccg gagcatggtc aggggatacg aggaggccat 300

<210> 1556

<211> 371

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-G12

<400> 1556

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 ccttatgctc cttggtatct ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg gcattctacc 240
 tttatcacc cttgttctcc aacaatcatc agccctatta cagcagttac ctttggtgca 300
 tttattggca canaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgnctactct c 371

<210> 1557

<211> 244

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-G2

<400> 1557

gtgcaatcac acgtacatca gtaacaccat gaagactatg ttcattcaata gtcctacga 60
 ccgctgtgcc ctaaccatca ccgtctgctc cggaaccacc aactccttca ctgtgaacgc 120
 cactaacagc ataaccaaca atcacttggc catgtgcaac aacacgaaca gagccatgag 180
 caacaccatg gagagagccc tgcgtcacag cattggcaac tatatcaggg tgatgacaag 240
 ctgc 244

<210> 1558

<211> 302

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-G3

 <400> 1558

 cgtcgacgca cgcgtccgcg atcttcttcg gctgttgacc gcccgtagcag tgctctactt 60
 gcttgggggc gtgcgtgagg gacgcggtga ccgacttgct tgtagtcagc tgtgatggag 120
 gggcggtatgc tgcagactgc tgcgcagctc gacgctggcg gaccagctcg ccgcggtcgc 180
 tgaaggctcg gctccgact gcgctgcgcc acgttctgga agtgggtttc gtgaatctga 240
 tcggcgcttt caggtcagct ctacattaca gatggtgggt gaaagcaaaa aggaacgga 300
 tc 302

<210> 1559
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-G5

 <400> 1559

 cgcgtccagg aacatacata gtgaagtaca ctagcaacat ctagcacca atgggagcca 60
 agatttgtgc cctccgtgcc gtccttgctc tttcagcaag cgctgctacc tcgactttta 120
 ttccacaatg ctcaacaaca tacctctctc cggtgacagc cgcgggattt caatacccaa 180
 ctatacaatc ctacatggta caagaggcca tccaagcaag catcttacgg tcattagcat 240
 taacctnca acaaccatat gctctattgc aacagccatc cttagtgcac ctgtatctcc 300
 aaagaatcgc ggcacaaca ctacaacaac agttgctacc aacaatcaat caagtagttg 360
 cagcgaacct tgctgcttac ctncagcaac aacagtttct tccattcaat caactagct 419

<210> 1560
 <211> 368
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-E9

 <400> 1560

ataggagctt gtgagcaaca tacctttatc gcccttggtg tttcaacaat cgccagcggt 60
 atctttgggtg cagtcattgg tacaaccat cagggcacia cagctgcagc aactcgtgct 120
 acctctgata aaccaagtag ctctggcaaa cttttctccc tactctcagc aacaacaatt 180
 tcttccattc aaccaactgt ctacactgaa ccctgctgct tatttgcagc aacaactatt 240
 accatttagc cagctagcta ctgcctactc tcagcaacia caacttcttc catttaacca 300
 attgcccga ctagcccccg ctgcttattt gcagcaacia attactacta ccattttacc 360
 agctagct 368

<210> 1561
 <211> 88
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D2

<400> 1561

tataacggtg ttaagcaata aaataccata cattatgatg tttgtactat gatatttgaa 60
 taagaatact aattgtaatt ataatgct 88

<210> 1562
 <211> 276
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D3

<400> 1562

tcccggtcga cgacgcgtcc gctgtttgtc cgtcgggctg gccaggcag cacggagctg 60
 accgtggagg gaaggccatg cgaccagctg ggcaggagaa acctactga cagccccgta 120
 tttgacggcc gtggccctga cgccagcctc gtggctcgcg tacagggagt cgctaccag 180
 atgggcgacg tgcgccagtt gtacaccgtc gtgttocagg agaggccgct caagggtccc 240
 acgctcgtca ccgaaaggcc caatgacaga agggtc 276

<210> 1563
 <211> 425
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-042-Q1-K1-D4

<400> 1563

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tgttatgctg cttgctcttt ctgcatgtgt tgctaacgcg acaattttcc ctcaatgctc 120
acaagctcct atagcttccc ttcttccccc ataccttcca tcaatgatag cttcagtatg 180
tgaaaacca gctcttcagc cctataggct ccaacaagca atcgagcaa gcaacatacc 240
tttatcacc ttgttgtttc aacaatcgcc agccctatct ttggtgcagt cattggtaca 300
aaccatcaag gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct 360
ggcanacctt ttctcctact ctcagcaaca acaaattctt ccattcaacc aactgtctac 420
actga 425

<210> 1564

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D5

<400> 1564

gaccaactag caacatagaa agcacaatag tgtaccaaca atggcagcca aaatattttg 60
cttccttatg ctcccttggtc tttctgcaag tggtgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcatac tctcagcaac atcagtttct tccattcaac caactggctg cattgaactc 420
tgctgc 426

<210> 1565

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D6

<400> 1565

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aatcaaatc tgcaacatca attatctaac tccaaaaacc atgaagctgg tgcttgtggg 120
tcttgctttc attgctttta tatcaagtgt ttcttgtaca cagacaggcg gctgcagctg 180
tggtcaacaa caaagccatg agcagcaaca tcatccacaa caacatcatc cacaaaaaca 240
acaacatcaa ccaccaccac aacatcacca gcagcagcaa caccaacaac aacaagttca 300
catgcaacca caaaaacatc agcaacaaca agaagttcat gttcaacaac aacaacaaca 360
accgcagcac caccaccaac aacaacaaca acagcaccaa caacaacatc aatgtgaagg 420
ccaac 425

<210> 1566

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D7

<400> 1566

aaaccacatg cgaatcgtat attgcctctt agtttatata tgtgaatata tgaaatatat 60
gatgcatgtg ttactagaat tttcttattg ttttttagtag catatagtgg tgggtttcga 120
agaacaatat ggttttatgg atccagctca atagaataag gatcagttgg attgcggtac 180
gaaatcggag ttcatacttc atataactat ttcttattcg tgctgatatt ttttggtggt 240
catgtacctt ttattatgc gtcgtttgct tgggtacttg acatgattct gtcgaattgt 300
ccgttacatg gtcacaggt tttggcccca gttcattgat ttgcttggtg gtaccgctat 360
tgaccatcca atgcagtgtt ctcaagggtc aaagtacgtg gaccttcagt tgggtgtaatc 420
ag 422

<210> 1567

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D8

<400> 1567

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gagattttcc ctgcttatgc tccttgetct ttctacatgt gttgctaacg cgacaatttt 120
ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgcagc 240
aagcaacata cctttatcgc ccttggtggt tcaacaatca ccagccctat ctttggtgca 300
gtcattggta caaaccatca gggcacaaca gctgcagcaa ctctgtctac ctgtgatcaa 360
ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattcaa 420
ccaactg 427

<210> 1568
<211> 390
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-042-Q1-K1-D9
<400> 1568

cccacgcgtc cgaaccgctc cacgccctcc ccctccgcgc agagccagcc aagccagccg 60
gccagtcaga agaggaaccg gggagcggca gctgcagcgg ccgagggcgg agcacgcgag 120
gcatggatag ataccaaagg gtagagaagc ctcggaatga cacgccaatc agccagaatg 180
agatcagaat cactactcag gggaggatga ggaactatat cagctatggg atgtcgctgc 240
ttgaggaaaa tggacatgat gagattagta tcaaggccat gggacggggc ataaataaga 300
cagttatggt tggtgaattg atcaagagaa gggttggagg tcttcatcag aacactgcta 360
ctgaatctgt tgatatcaca gacacatggg 390

<210> 1569
<211> 431
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-042-Q1-K1-E1
<400> 1569

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aacaacgaca acaactggtg ctagcaaacy ttgctgccta ctctcagcaa cagcagtttc 120

ttccattcaa ccaactagct gcattgaact ctgcttctta ttgcaacaa caacaactac 180
cattcagcca gctacctgct gcctaccccc agcaatttct tccattcaac caaattggca 240
gcattgaact ctctgctta ttacagcag caacaactac taacaattaa cccactaact 300
tgtggaacc ctggaactt cttgatacaa ccaccagtgg tggccgtcta acaacaccct 360
tggcctaacg cttgcaccct ttacaactg gaacaattgg tggcattcaa ccaacttgct 420
ttgacaaacc c 431

<210> 1570

<211> 210

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E10

<400> 1570

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ctaccaacaa cacatgattg gtggtgccct cttttagatt gattattagt tgaaattcaa 120
taataaagtt ttatggatga tgtatgtggc caaccagaaa taagaaggta catttccaga 180
ttctaattgtg aaacagcatt atacacaaaa 210

<210> 1571

<211> 310

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E11

<400> 1571

cccacgcgtc cgcaccaacg caaattgcac caagaaatcc atcgagaggc cgtcgacagg 60
ggaattaatg gcgtcgtcgt ctagcagcag ccaccgccgc ctcatcctcg cagccgccgt 120
cctgctctcc gtgctcgcgg ctgccagcgc cagcgcgggg acctcctgcg tgccgggggtg 180
ggccatcccg cacaaccgcg tcccagactg ccgctggtac gtgaccagcc ggacctgcg 240
catcggggcg cgcctcccggt ggccggagct taaaaagaga tgctgccggg agctggcgga 300
catcccgggcg 310

<210> 1572
 <211> 345
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E12

<400> 1572

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 gtcgtcgtct agcagcagcc accgccgcct cctcctcgca gccgccgtcc tgctctccgt 120
 gctcgcggct gccagcgcca gcgccgggac ctctcgtcgtg ccgggggtggg ccatcccgca 180
 caaccgcgtc ccgagctgcc gctggtacgt gaccagccgg acctgcggca tcgggccgcg 240
 cctcccggtg ccggagctga agaggagatg ctgccgggag ctggcggaca tcccggcgta 300
 ctgccggtgc acggcgctga gcctcctcat ggacggcgcg atccc 345

<210> 1573
 <211> 378
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-E2

<400> 1573

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 ttcaagaaga ctacgtgcct gctgttccgc acgatgatga cgaagacgtc cttcctagtc 120
 cagctccctc gataaagcca atcgatgagc cggcgcaaga gaagtgttct cctatcaacg 180
 cttttcagtt gatcgggatg gcctctttcc cttgaccttt ctggtttctt cgaggaagag 240
 gatgcagcgc aaagaaagat tcggttcact tcgacgcacc cacccaaaga tctatttgac 300
 aagatcgaag agcgtgtcat ggagatggga ttcaaagtcc ataggggggc aagcaagctc 360
 aaggctctga agaatagc 378

<210> 1574
 <211> 259
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E4

<400> 1574

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ttgacctgtt caccgcgtcg ctgccgctca atccacagat catggcgaac agctcgctct 120
tatgctgggg cgggtggccac ggccggcgctc gccggcgctca gaggcgctg gtgcgtgtgc 180
cggtcggacc tgcggacgcg cgctgcagaa gacgctggac tacccttccg gcgtcagacc 240
gactgcaagc ccattcctgc 259

<210> 1575

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E5

<400> 1575

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ttgtgaaaac ccaggccttc aaccctacag gctccaacaa gcaatcgcaa caagcaactt 120
acctttatca cccctgttct ttcaacaatc gccagcccta tctttgggtgc agtcattggg 180
acaaaccatc agggcacaac agctgcaaca actcgtgcta ccagtgatca gccaagtagc 240
tctggcaaac ctttctccct actctcagca acaacaattt cttccattca accaactgtc 300
tacactgaac cctgctgctt atttaacaca acaacaacta ctaccattca gccagctagc 360
tactgcctac tctcagcagc aacaatttct tccatttaac caattggccg cactgaacct 420
ctctgcttat ttccagcagc aa 442

<210> 1576

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E6

<400> 1576

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tgctcctta tgctccttgg tctttctgca agtgctgcta cggcgaccat tttcccgcaa 120
tgctcgcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg 180

gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc agctggcatc 240
 ttacctttat cacccttggt cctccaacaa tcatcagccc tattacaaca gttacctttg 300
 gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
 cttgctgcct actctcagca acagcagttt cttccattca accaactagg ttcattgaac 420
 tctgcttct 429

<210> 1577

<211> 292

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-E7

<400> 1577

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 ctggcaaaca tagttgcata cgaacaacaa caacaattgc aacagtttct accagcgctc 120
 agtcaactag ccatggtgaa cctgcccgc tacctacaac agcaacaact gatttcatct 180
 agccctctcg ctgtggttaa tgcacctaca tacctgcaac aacagttgct gcaacagatt 240
 gtaccagctc tgactcagct agctgtggca aaccctgctg cctacttgca ac 292

<210> 1578

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-D11

<400> 1578

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 gaaccctgtc acctacttgc aacagcagct gcttgcattc aaccacttg ctctggcgaa 120
 cgtagctgca taccagcaac aacaacagct gcaacagttt atgccagtgc tcagtcaact 180
 agccatggtg aaccctgccg tctacctaca actactttca tctagcccgc tcgcggtggg 240
 caatgcacct acgtacctac aacaacagtt gctgcaacaa attgtaccag ctctgactca 300
 gctagctgtg gcaaaccctg ctgcctactt acaacagttg ctttcattca accaaatggc 360
 tgggtcaaac tctgctgcgt acctacaaca gcgacaacag ttacttaatc cattggcagt 420

ggc

423

<210> 1579
<211> 375
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-042-Q1-K1-B3

<400> 1579

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gcttctcgcc gataattatc cctgcaccag tttgagttgg agaagacgaa cttccaccgt 120
cttgggaccc tataccctct cctttagtta gcaatggatg ttgcactaag agatcacctt 180
agacggagga gagatgagga ggaggatgat atgatgctgn ttttttccta tgctacatat 240
attgggttct agttcanaca tagtaaggga gaagaagcga aggcatacat canagttatc 300
ttagaaggga ggggctgggt cgtgatacaa ggattaaggt cgagggaag ctagcattct 360
tcttatacat gctca 375

<210> 1580
<211> 372
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-042-Q1-K1-B4

<400> 1580

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ctcgacacca tgaagggtgt gatcgttgcc cttgctctgc tggcgctcgc tgcgagcgcc 120
gcctccagta caagcggcgg ctgtggctgc cagacaccac cgtttcatct accgcctccg 180
ttctatatgc cgnctccgtt ctatctgccg ccgcagcagc agccgcagcc atggcaatac 240
cccactcaac caccgcagct aagcccgtgc cagcagttcg gatcctgcgg cgtcgggaag 300
cgtcgcagcc cgttcctggg ccaatgcgtc gagttcctga ggcaccagtg caaccggcg 360
gcgacgcct ac 372

<210> 1581

<211> 158
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-B5

 <400> 1581

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 ataatgtgtc acgcagcacc atgggtggca gtgtcagtggt gagcaatgac ctgaatgaac 120
 aattgaaatg aaaagaaaaa aagtactcca tctgttcc 158

<210> 1582
 <211> 317
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-B7

 <400> 1582

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 ccctgctgcc ttcttgacac aacaacagtt gttgccgttc tacctgcacg ctatgcctaa 120
 cgctggcacc ctcttacaac tgcaacaatt gctgccattc aaccaacttg ctttgacaaa 180
 ctcaacagtg ttctaccaac aacccatcat tgggtggtgcc ctctttttaga ttgcttatga 240
 gttatagttc aataatgaag ttttttggat gatgtttgtg gcgtcccaga aataagaaag 300
 tacatttcta gattctt 317

<210> 1583
 <211> 255
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-B8

 <400> 1583

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 acttcgatga ccattaaact gttgcgtctg atgcttgctg ctatcgcttt aatatcaagg 120
 gtcatttgta cacagacagg cggtgcaac tgtgctcacc atctaaacga tgcgcactta 180
 catactccag catgccatga tacacatttt ctatagcgtc aaccaccatc acatcattgg 240

ccgcagcatt aacac

255

<210> 1584

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-B9

<400> 1584

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tcctatagct gcccttcttc ccccgtagct ctaccagcg gtgtcttcgg tatgtgaaaa 120

cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 180

acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 240

ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 300

ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 360

tttgcaacac 370

<210> 1585

<211> 226

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-C1

<400> 1585

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caagggccag gaaaggctaa ccgaaaacga catgccagc ctgagctacc tgaacctggg 180

gatcaaggag gccctacggt tgcacccgcc ggtgccactg ttgttg 226

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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-C11

<400> 1586

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caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttccattc 120
aaccaactag gttcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 180
cagctacctg ctgcctaccc ccagcaattt cttccattca accaactagc agcattgaac 240
tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc 300
cctgctacct tcttgacaca accacagttg ttgccgttct accagcacgt tgcgcctaac 360
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ccaacaatgt tct 433

<210> 1587
<211> 358
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-042-Q1-K1-C12
<400> 1587

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acggcgatgt gcggcctgca gcagccgact ccatgccctt acgctgctgc cggcggtgtc 180
ccccactgaa gaaactatgt gctgtagtat agccgctggc tagctagcta gttgagtcac 240
ttagcggcga tgattgagta ataatgtgtc acgcatcacc atgggtggca gtgtcagtgt 300
gagcaatgac ctgaatgaac aattgaaatg aaaagaaaaa aagtactcca tctgttcc 358

<210> 1588
<211> 359
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-042-Q1-K1-C3
<400> 1588

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aangactacn gaggtgacaa gtacgtgaac ggcgagataa tcccctgcac gtacccgacg 120
taccagccga aggagcggag gacgtccaag tacgagagca ggcggtacga gaggcggaga 180

gatgggccac cggcggccag caggaaaccg aggcagcagg caccagctca gactcagacc 240
gagtcggcgt cttcgtgacg agctctgcag gcattttgtc cacgtaccta cctacctaga 300
agtagaacia gagaagaaga cgcctaaaat tctgtcgcac tgggcaccgg gtactggac 359

<210> 1589

<211> 330

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-C4

<400> 1589

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tgtgtctccac aaacccctcc ctcatggcgc atgctaccac gtgggtggggc cgcctggccg 120
agcttgccgt ggactctgca gacgctgttt ccgccgggtgc gtttgaggct cttgcacggc 180
tggtccagga gctagagggg cgcgcgatga gccggctagc tggagacaag cttgttgatg 240
gagaagggtgc gcttgcaagt cgtgcccagt gggcggctga tgccattgat ttcatttggt 300
caaggcgcaa catgctgatt gcgcgctcta 330

<210> 1590

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-C5

<400> 1590

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tccttgggct ccttggctct tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttac ctacttacc cctacctctc accagcgggtg tcttcaatgt 180
gtgaaaaccc aattgttcaa cctacagga tccaacaggc aatcgcaaca ggcattctac 240
cattatcacc cttgttcctc caacaaccgt cagccctatt acagcagtta cctttgggtc 300
atttgggtggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
ctgcatactc tcagcaacat caggttcttc cattcaacca actggctgca ttgaactctg 420
cttgcatttt gcaacaacaa tta 443

<210> 1591
 <211> 193
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-042-Q1-K1-C6

<400> 1591

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 gctgtcacat ctgtgtcctc gatactcccg cgcaagacc taacgcttat gtgctgcaca 120
 aaccctccc taatggcgca tgctaccacg tctggaggcc gactggcga gcttgggcct 180
 gactatgcag acg 193

<210> 1592
 <211> 415
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-C7

<400> 1592

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 cttatgtgag tttgaagaga gaacttgaga atttaatcca ttgcaagctc caaaacccaa 120
 ggatggatat ccaaacgagt gaagagctgc tatcagccat ccgtttgctg gtgactgaag 180
 atccatgcag tgggcgggtc gtgtacggcc gacaggagcc aagatcaaag aaagcaaaga 240
 cgatgcttcc gccatcctct ctgagtgaag ctgggtggcaa cggaggggat aatgccaaga 300
 accagctcca gacttacctg acccgggccc ggcacagcaa ccncacctac aagacgaagc 360
 agatcaagag ctatctcttc agatcgacgg gtgagttcaa cggcatgcag ttcgt 415

<210> 1593
 <211> 429
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-042-Q1-K1-C8
 <400> 1593

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 tgtcttcggg atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag 120
 ctggcatctt acctttatca cccttggttc tccaacaatc atcagcccta ttacaacagt 180
 tacctttggg gcatttattg gcaaaaaaca tcagggcaca acaactacaa caacttgtgc 240
 tagcaaacct tgctgcctac tctcagcaac agcagtttct tccattcaac caactagggt 300
 cattgaactc tgcttcttat ttgcaacaac aacaactacc attcagccag ctacctgctg 360
 cctaccccca gcaatttctt ccattcaacc aactagcagc attgaactct cctgcttatt 420
 tacagcagc 429

<210> 1594
 <211> 391
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-042-Q1-K1-C9
 <400> 1594

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 cagaaaggca aagctacagg cacaattttc acaaatgcgt cctgttgcaa tggcgccttc 120
 agtaggtcct cgcattgcca tgtttccacc tgggtgtcct ggagttggtc agcagctgtt 180
 ctatggtcag ccaccaccag ccttcatcaa ccctcaggct ggatttgctt tccagcaacc 240
 tctgatgcct ggtatgaggc ctggtgggtc aatgccgaac tttatgatgc ctatggttca 300
 gcaaggacag caaccacagc gtcctgctgg tagacgtgct ggtggaatgc agcagcccat 360
 gccaatgggt ggtcagcaac aggtgttccc t 391

<210> 1595
 <211> 381
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-042-Q1-K1-D1
 <400> 1595

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 gctccttggg ctttctgcaa gtgctgctac ggccagcatt ttcccgcaat gctcgcgaagc 120

tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggacanaac atcagggcac aacaactaca acaacttggt ctagcaaaac ctgctggcta 360
 ctctcagcaa cagcaggttc t 381

<210> 1596

<211> 377

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-D10

<400> 1596

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 acgagggccc gtcggagctg taccgtgggc tgacaccag cctgatcggc gtggtgccgt 120
 acgcggcctg taacttctac gcctacgaga cgctgaagcg gctctaccgt cgcgcgaccg 180
 ggcggcgctc cggcgcggac gtgggccccg tggcgacgct gctcatcggg tcggcggcgg 240
 gcgccatcgc cagctcggcc acgttcccgc tggaggtggc ccgcaagcag atgcaggtgg 300
 gcgctgtggg cgggaggcag gtgtaccaga acgtcctnca cgctatctac tgcctcctca 360
 agaaggaggg cgccggc 377

<210> 1597

<211> 202

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-B2

<400> 1597

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 tccgctcgcg cgtcctctcg ttctcctcgg ggtgttctct gtgtcctggg cgtcctctcc 120
 tctcctcacc tgtccactcg gacgcccccc accagaccga aaccctcgct ttcgacgaga 180
 tccagctgtc gccggagaag cc 202

<210> 1598
 <211> 425
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D9

<400> 1598

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 cgttcattat tccacagtgc tcaattgctc ctagtgccat tattccacag gtcctccac 180
 cagttacttc aatgggcttc gaacattcag ccgtgcatgc ctacaggcta caactagcgc 240
 ttgcgggcag cgccttataa caaccaattg cccaattgca acaacaatcc ttggcacatc 300
 taaccctaca gaccattgca acgcaacaac aacaacagca acagtttctg ccatcactga 360
 gccatctagc cgtgggtgaac cctgtcacct acttgcaaca gcagctgctt gcatccaacc 420
 cactt 425

<210> 1599
 <211> 270
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E1

<400> 1599

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 tggcggcgga catggagctg gaccgcccc aacctggagga ctacctccg cccgactcgc 120
 tcccgcagga ggcgcccagg aatctccatc tgcgcgatct gcttgacatc tcgcccgtgc 180
 taaccgagga agcgggtgcc atagtcgatg attcattcac gcgttgcttt aagtcgaatt 240
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<210> 1600
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E10

<400> 1600

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ccgggatttt tgccctcctt gccctccttg ctctttcagc aagcgctgct acctcgactt 120
ttattccaca atgctcacia caatacctct ctccgggtgac agccgcggga tttcaatacc 180
caactataca atcctacatg gtacaagagg ccatccaagc aagcatctta cggtcattag 240
cattaaccct ccaacaacca tatgctctat tgcaacagcc atccttagtg catctgtatc 300
tccaaagaat cgcggcacaa caactacaac aacagttgct accaacaatc aatcaagtag 360
ttgcagcgaa ccttgctgct tacctacagc aacaacagtt tcttccattc aatcaactag 420
ctgggggtga 429

<210> 1601

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E11

<400> 1601

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gggagtcgcc ggccgcatc accgggacgc ctatcacgag gactgcgcct cgtgccacgg 120
ctacacgtcg ttcaaaagca tagatgagcc caagctcggg ctgtggcgaa ctctggctac 180
caaagccaag gggatcctcg acgaggacgg gttggcgcat aagttcgaag acttgcgga 240
agaacggcct cgtagcgact cactgcac cagcatagat caggctccta actctcgctg 300
gtcatttgag aaccactgga aggccggaga cgccatgtca cggatcagac ccgaggctct 360
ttctgcttct gcccaaccagc tcagtggaaa aatgaagaat gctttggcag aagggtcac 420
gatcgtggat aacaagacc 439

<210> 1602

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E12

<400> 1602

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 ttctgagctg aagtgtcttg gatctgatca gtttcatcat tactttgtga agaagcttat 180
 atctatggca atggatcgcc atgacaaaga aaaagaaatg gcatcgattc tggtatcatc 240
 tttgtatgct gatctactga gtcctacag gatcagtga ggttttatga tgcttctgga 300
 gtctacagaa gatctaactg ttgatatacc ggatgctact gatgtattgg cagtttttat 360
 tgcacgggct attgttgatg aaattttgcc tctgttttc ctcactcgag ctagggcact 420
 atttcc 426

<210> 1603
 <211> 267
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-E2
 <400> 1603

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 tagccctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
 aatgctcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
 gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgtct 240
 tacaacaacc aattgtccca attgcaa 267

<210> 1604
 <211> 273
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-E4
 <400> 1604

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 ggggggggct cgggacggga acgggacacg accccaaaat ctcagatcct tctgcccgc 120
 ccgcccgtgc ccgtcgacgc gtcgttcttg ccggccgcgc ctcacctccg cctctctctc 180
 ctccaggggg atcggatacg ccacaggctg cgcgatgggt ctgtgggtct tcggctacgg 240

ctccctcatc tggaaccccg gcttcgactt cga

273

<210> 1605

<211> 263

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E6

<400> 1605

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aggttgggtg tttccgactc cggtgactcc accaccagca acccgtgcag cgagcgact 120
ccgaccatcg ccatgtcgag gcgcggcgac tgggtctacg agaacaacgg cgggacctgc 180
gtggccatcg ccggcgctga ttactgtgtc gtcgctgcgg acacccgcct ctctgtagga 240
tacagtatcc tcacgccgtg atc 263

<210> 1606

<211> 263

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E7

<400> 1606

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tttaaaggaa tgctggagcg cactttgcat ttctgcaag ttaacaagag caacattcat 120
ccaggtttga gggaaaaaat ccccatctac gagaggcaaa ttctcagtat cctaagttca 180
caaagaagga aacctgtgca ggcacctggg cagcaaactt ttcagcaatc tagtgggcaa 240
gtcctagct ctaacatttc aca 263

<210> 1607

<211> 258

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E8

<400> 1607

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tctgggacggg aacgggacag gacccccaaaa tctcagatcc ttcctgcccg cccgcccgtg 120
 cccgtcgacg cgtcgttctt gccggcgcgc cctcacctcc gccctctcct cctccagggg 180
 gatcggatac gccacaggct gcgcgatggg gctgtgggtc ttcggctacg gctccctcat 240
 ctggaacccc ggcttcga 258

<210> 1608

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-E9

<400> 1608

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 cgcgggggctg caaggcttgt acggcgtggt cgcgggctg acgaccatga tgggcgcgcg 180
 cgggctgtac ccctacgcgg agtacctgag gcagccgcag tgcagcccgc tggcggcggc 240
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 ctgccagcag cagatgaaga tgatggacgt gcagtccgtc gcgcagcagc tgcagatgat 360
 gatgcagctt gagcgtgccg ctgccggcag cagcagcctg tacgagccag ctctgatgc 419

<210> 1609

<211> 267

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F1

<400> 1609

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 tggctgcaag tgctgctacg gcgaccattt tcccgcgaatg ctgcgaagct cctatagctt 120
 cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc 180
 aaccctacag gatccaacag gcaatcgcag ctggcatctt acctttatca cccttgttcc 240
 tccaacaatc atcagctcct attacaa 267

<210> 1610

<211> 440
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-F10
 <400> 1610

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 ctcgccgag gtgttcgggc acgaggtccg cgagctgcgc gcccgcgccg cggggctccc 120
 cgacgagtac ttcgtcgtgc tcgtgggcca catggtcacg gaagaggcgc tgcccacgta 180
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 caagtacatg tacctatccg gccgcgtcga catgcgcatg gtcgagaaga ccgtccagta 360
 cctcatcggc tccggcatgg atcccgaac ggagaacaac ccgtacctgg gcttcgtgta 420
 cacgagcttc caggagcgcg 440

<210> 1611
 <211> 154
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-F11
 <400> 1611

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 attttccctc atatgctcac aagctcctat agat 154

<210> 1612
 <211> 391
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-F12
 <400> 1612

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 ggcatcaatt atctaactcc aaaaaccatg aagctggcgc ttgtgggttct tgctttcatt 120

gctttattat ccattgttta ttgtacacag tcaggcagct acaactgcta ttaccaccgc 180
taccatcatc cgtacatcgt tcacaactca tgatacaaca accaccacca ctagcgataa 240
ccaacacttc tgcatactct caaccacacc caacaattag ttacatgca atcacttaat 300
cgtaatctgc tacttgattg caacgtccac cactaccatc cctaccgcta catgatcact 360
aacaacagca actacttcac ttacagcaac t 391

<210> 1613

<211> 270

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F2

<400> 1613

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accaaccccg gggggggcta ataacaggaa cgggacacca ccccataatc tcacatcctt 120
cctcaccaca tcgcccgtac cattccacac atatctcttg ccagacgccc ctcacatccg 180
cactctcttc ctccagaccc atcagatata caacatgatc caccatgatg ctgacaaatt 240
tctcatccca ctccctcatc tcgcacccca 270

<210> 1614

<211> 148

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D8

<400> 1614

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acagccataa tgcaacacgt tctccgacca gccatactac tccgcttgta acaagtagct 120
ctccatgcta caatccatca accaacac 148

<210> 1615

<211> 268

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F3

<400> 1615

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagtTC ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgg 268

<210> 1616

<211> 262

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F4

<400> 1616

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gcttcctttc ttccccata cctctacca gcgggtgtctt cagtatgtga aaaccaatt 120
cttcaaccct acaggatcca acaggcaatc gcagcaggca tcttaccttt atcacccttg 180
ttcctccaac aaccgtcagc cctattacag cagttacctt tgggtgcattt gttggcacia 240
aacatcaagg cacaacaact ac 262

<210> 1617

<211> 246

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-F5

<400> 1617

agctccgagg aaccaatgca catacaagcg cactagcgac acatgacggg ggtaaatagt 60
tacctatctt gactcttgcc ctagtgtat gcacaaagct ttcattttgc tagtaggcac 120
ttacatccta gtgccattat tccacagttt ctcccaccag ttacttcaat gggcttcgca 180
cacctatctg agcatgccaa catgcaccag caagcgcttg tggcgagcga cttacaacaa 240
ccaatt 246

<210> 1618

<211> 222
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-F6

 <400> 1618

 tcgcgagcta gacgctgctc cctctggatt tgtccgacac tgccgacatg ctggggtggg 60
 ttgatgacga ggaggatgcc tctgactatc ggtgtgttga gtatgtgaaa accttgttgt 120
 tggatggtat cggatacaac gaggagggcc agcaggcagt gcacctgtat tacactatga 180
 cctagtacag cgagagctgg acacgacagc gagcacgaca ag 222

<210> 1619
 <211> 393
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-024-Q1-K1-B9

 <400> 1619

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 ggatgggttc cctccttatg ctccttgctc tttctgcatg tgttgctaac gcgacaattt 120
 tccctcaatg ctcaacagct cctatagctt cccttcttcc cccatacctt ccatcaatga 180
 tagcttcagt atgtgaaaac ccagctcttc aac~~c~~ctatag gctccaacaa gcaatcgag 240
 caagcaacat acctttatca cccttggttc aacaatcgcc agccctatct ttggtgcagt 300
 cattggtaca aaccatcaag gcacagcagc tgcagcaact cgtgctacct gtgatcaacc 360
 aagtagctct ggcaaacctt tcntcctact atc 393

<210> 1620
 <211> 263
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-C1

 <400> 1620

 atacagtgga atccagaccc agcaattgag catcaatggc gaccaagata ttttcgcggc 60
 ggtgctcctt gctcttgcta catgtgttgc taacgcgaca atgttcctc aatgctcaca 120

agctcctata gcttaccttc ttgcgctata ccttccatga attatagctc taatatgtgc 180
aaaccgagct cttcaaccat ataggcttca acaagcaatc gcagcaggca acataccttt 240
atcgcccttg acgaattcaa caa 263

<210> 1621

<211> 260

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C3

<400> 1621

atagaaagca caatagtgtg ccaacaatgg cagccaaaat attttgcctc cttatgcgcc 60
ttggtctttc tgcaagtgtc gctacggcga ccattttccc gcaatgctcg caagctccta 120
tagcttcctt tcttcccccg tacctctcac cagcgggtgc ttcggtatgt gaaaacccaa 180
ttcttcaacc ctacaggatc caacaggcaa tcacagctgg catcttacct ttatcacctt 240
tgttcctcca acaatcatca 260

<210> 1622

<211> 269

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-024-Q1-K1-C4

<400> 1622

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ggtgctgttc gtaagggaat gaacgacata aatgcagccc aaaggcttca actggcaagt 120
gtttacaagg gagaagcaga gaagatcctt atggtgaaga aagcggaggc agaagcagag 180
gcgaaatata tttctggtgt cggtatcgct aaacagcggc aggcgataac cgacggcctt 240
agagagaaca tncctcgaac ttctcaca 269

<210> 1623

<211> 260

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C5

<400> 1623

gaccaactag caacatagaa agcacaatag tgtaccaaca atggcagcca aagtatggtg 60
cttccttatg ctccttggtc tttctgcaag tgttgctacc tgaaccattt tcccacaatg 120
ctcacaagct cctatagctt cctacttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccitgttcc 260

<210> 1624

<211> 262

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C6

<400> 1624

gcggtgttct tgggattatt gagaatccgg tgtctatcaa aagtatagaa tgtgcggtcg 60
gagacaaagg ttttgaagag ggatggatga ttccacgacc tccacttcaa agaacaggaa 120
ggaaggtggc cattgttggc agtggaccat ctggtttggc tgctgcagat caactaaata 180
aaatggggcca cttcgtaact gtgttcgaac gtgcagatcg aattggaggt ttaatgatgt 240
atggtgtgcc aaacatgaag ac 262

<210> 1625

<211> 157

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C7

<400> 1625

cgctacgcac aaaccagca gcgtactacc aacaacccat cattgggtggt gccattttg 60
acatctcata cgagtgggac ttcaataatg aagtgctacg gctgacgttt gccgctaacg 120
ataaatagca acgatcattt ctaaaataac aacatac 157

<210> 1626

<211> 246

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C8

<400> 1626

atccaatcca gatcagcaaa gcggcagtg ctagagagga tcgtcgaaca gggcaggatg 60
aagatgggtca tcgttctcgt cgtgtgcctg gctctgtcag ctgccagctc ctctgcaatg 120
catatgccct gccctgcgc ggggctgcag ggcttgtacc gcgctggcgc cggcctgacg 180
acgatgatgg gcgcctgcgg tctgtacccc tacgcggagt acctgaagca gccgcagtg c 240
atccccg 246

<210> 1627

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-C9

<400> 1627

gtctgagtca tccagagggtg tgcaagaaaa ctgccagttt aattgggtgtg caaggaggct 60
gggagtttat tggggtttaa tggttttgtt ggttatgtga ataagtttaa tgtgataatt 120
ttaatgcagc attaggttca acttacttcc attgaatcaa caccctgcc actacttatt 180
aactggcttg tgtgattaga gcaatcctat ccaacattgt caactgactt gtgtggttta 240
attctataaa ctatgagtat ggattttcct tagattagaa aaaaagggtga atcatttctt 300
agtccactgt ctgtcataca cagtgtctaga gagtagagag tagagacact gtctgtcata 360
cgcactgttc attatgtatg tgaattcgcc aggaggggtca atgacagctt gtaatacctt 420
atct 424

<210> 1628

<211> 266

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D1

<400> 1628

ctcaatgctc acaagctcct atagcttccc ttcttcccc atacctcca tcaatgagag 60

ctgcagtatg tgaaaacgca gctcttcagc cctataggct ccaacaagca atcgcagcaa 120
gcaacatacc tttatcacc ttgttggttc aacaatcgcc agccctatct ttggtgcagt 180
cattggtaca aaccatcagg gcacagcagc tgcagcaact cgtgctacct gtgatcaacc 240
aagtagctct ggcaaaccat ttctcc 266

<210> 1629

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D10

<400> 1629

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cggggagcgc cacctccacg catacaagcg gcggctgcgg ctgccagcca ccgccgccgg 120
ttcatctacc gccgccggtg catctgccac ctccggttca cctgccacct ccggtgcac 180
taccaccgcc ggtccacctg ccgccgccgg tccacctgcc accggcggtc catgtgccgc 240
cgccggttca tctgccgacg ccaccatgcc actaccctac tcaaccgccc cggcctcagc 300
ctcatcccca gccacacca tgcccggtgc aacagccgca tacaagcccg tgccagctgc 360
agggaaacctg cggcggttggc agcaccgccga tcctggggcca gtgcgtcgag tttctgaggc 420
atc 423

<210> 1630

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D11

<400> 1630

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ggctctgctc ctcttcgcc gccgcaggat ctcttatcgc cggagaccat gtaccgcgcc 120
gccgggagcc acctccgctc cctcaagcat catggtgctt ctaggcttgc cagtacaagt 180
gttgcaagc agtcctcagg tggctctgtc agctggcttc ttggtggaaa atcaagcgaa 240
ctccctcccc ttgatgttcc actcccaggc attagcattc cctcacctct accagatttt 300

gtagagccat ctaagacaaa agtcactact cttccaaatg gcgtcaagat cgcctcggag 360
 acatcaticga gccacgacgc atctgtgggt ctgtacattg actgggggttc catttacgaa 420
 ac 422

<210> 1631
 <211> 342
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-D12
 <400> 1631

tatattatat tttctttttt ttgtttccac caaacgcaca gccggattat tgaaactaac 60
 gtaggacatt agataaatac ggaaatattg catgcatgaa acattaatta tactgatgat 120
 cgaacacgac acacaacatt tgagcaccca tgcaagctgc tctttcattc aaaagattcc 180
 caggagcaga gactacgaca acttccttct gatcctgcat gcatgtaacc ctctaaccac 240
 gaaagacgtt gccgcaacta ggctcatgat cctacttcta attggaagta aggccggcaa 300
 cgaaattacc ataaacgatg ctacaaacgc ccaatccaac aa 342

<210> 1632
 <211> 267
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-024-Q1-K1-D2
 <400> 1632

ctccggtgca tctcccaccg ccggtccacc tgccgcccgc ggtccacctg ccaccggggg 60
 tgcattgtgcc gccgcccgtt catctgccgc cgccaccatg ccaactaccct actcaaccgc 120
 cccggcctca gcctcatccc cagccacacc catgcccggtg ccaacagccg catccaagcc 180
 cgtgccagct gcagggaacc tgcggcggtg gcagcacccc gatcctgggc cagtgcgtcg 240
 agtttctgag gcatcagtgc agcccgaa 267

<210> 1633
 <211> 261
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D3

<400> 1633

gccgcccttt tttttttttt tttatttact ccaccactac aggtccattt atttacgcgc 60
agtataaaat taccgatcgg tacttaacta cacacgcaag caattagttc atgcgcttat 120
taggttggtgc cactggccac cactacacta cattacacta gcacaagcaa gcagctacac 180
atacttggtcc ataatcacata aacgaaacag catatataag aagatgtccc aacatctttg 240
caccacgcgc tgagatcagg g 261

<210> 1634

<211> 261

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D5

<400> 1634

caacaactac cattcagcca gctacctgct gcctaccccc agcaatttct tgcattcgac 60
caactggcag cattgaactc tcttgcttat ttacagcagc aacaactact accattcagc 120
cagctagctg gtgtgagccc tgctaccttc ttgatacaac cacagttggt gccgttctac 180
cagcacgctg cgcctaacgc tggcaccctc ttacaactgc aacaattgct gccattcaac 240
caacttgctt tgacaaaccc a 261

<210> 1635

<211> 264

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D6

<400> 1635

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ggctagctag gtggctcctg aacgaagatg ttggcgggtg tcagcgggtca ggtgggtggag 120
gtgccggctg atctgggtggc ggcgggcagc cggacgccgt cgcccaagac gaaggcgctg 180
cagctgggtg ggcgcttcct ggccgcctcc gagccggccg tgtccgtgca gctcggcgac 240
cacggccatc ctcgcctact ccac 264

<210> 1636
 <211> 260
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B8

<400> 1636

ggtgcattga actctgctcc ttatctgcaa caacaacaac taccattcat ccgggtgcct 60
 gctgcctacg ccgagcaatt tcttccattc aacgcaactg gcagcattga actctcctgc 120
 ttattttacag cagcaacaac tactaccatt catccagata gctgggtgtga gccctgctac 180
 cttcttgata catccacagt tgttgccgtt ctaccatcac gctgcgcccta acgctggcac 240
 cctcttataa ctgcaacaat 260

<210> 1637
 <211> 258
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-D7

<400> 1637

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 tcgtgtgcct ggctctgtca gctgccagcg cctctgcaat gcagatgccc tgcccctgcg 120
 cggggctgca gggcttgtac ggcgctggcg ccagcctgac gacgatgatg ggcgcctgct 180
 ggctgcaccc atacgcggag tacctgatgc agccgcagag cagcccgtg gctgcggcgc 240
 cctactacac caggtgtg 258

<210> 1638
 <211> 375
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A10

<400> 1638

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 tggtgctccg atatcctcaa ctgataagcc aatatcatca agatggagga tactgatgcc 120

cgatggatcc tatggcaagt atccaactcc gagggcgcta gccacatccg agataccaga 180
aattgttgag caataccgac aagcagccat aaacgccatc aaagcaggct tcgatggcat 240
cgagatccat ggcgcccattg gctacctcat cgatcagttc ctcaagggcg gtatcaacga 300
ccggactgac gagtacagcg gctcactctc caaccgctgc cggatcctgc tggatgcgac 360
ccgagccagg gtctc 375

<210> 1639

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A11

<400> 1639

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gcgatttctt ccattcaacc aactggcagc attgaactct catgcttatg tacaacaaca 120
acaactacta ccattcagcc agctagctgc tgtgagccct gctgccttct tgacacagca 180
acatttggtg ccgttctacc tgcacactgc gcctaacgtt ggcaccctct tacaactgca 240
acaattgctg ccattcgacc aacttgcttt gacaaacca gcagtgttct accaacaacc 300
catcattggt ggtgccctct tttagattgc ttatgagtta tagttcaata ataaagtttt 360
ttttgctgat 370

<210> 1640

<211> 273

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A2

<400> 1640

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gggcagatag cgcagcaact gacggcgatg tgcggcctgc agcagccgac tccatgcccc 120
tacgctgctg ccggcgggtg cccccactga agaaactatg tgctgtagta tagccgctgg 180
ctagctagct agttgagtca tttagcggcg atgattgagt aataatgtgt cacgcatcac 240
catgggtggc agtgtcagtc gtgagcaatt tgg 273

<210> 1641
 <211> 268
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-024-Q1-K1-A3

<400> 1641

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 atgattttcc ctccttatgc tccttgcctc ttctacatgt gttgctaacg cgacaatttt 120
 ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
 agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgagc 240
 aagcaacata ncctttatnc gcccttgt 268

<210> 1642
 <211> 267
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-A4

<400> 1642

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 tgcctgccct cacatccgct cctccctccc cgacaccgac cgaccctcg tccgctcgcc 120
 tccctccccg atccccaccg ccatggccgc cgccgcgccc gccgcgtcct cctcttctc 180
 ctccgaggtt ccgatcgccg cccgcacctg cgtctccgtc ggcgaggtgg cgggtggcgc 240
 ggtggctaca ggcagcaggc gaccggg 267

<210> 1643
 <211> 266
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-A5

<400> 1643

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 cttacttgat tgtgcgcta gctttctata catgtcatac ttgcacgaca ttgctcgtc 120

ctggctgacg atctaataac gctgtacatc ttgcctgata ctatgactga attctagctt 180
gcgtatgagc aaaccagga ttactaccat acaggctgga ccaggcaata tgaataagca 240
acatacctaa atcgtacact tgttga 266

<210> 1644

<211> 297

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A6

<400> 1644

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tccggacgcg ctcggttcgtt cgcaaggcg cgccgggctg acctcacatc cgctcctccc 120
tacccgacac cgaccgaccc ctagtccgct cgcctccctc cccgatcccc accgccatgg 180
ccgccgccgc cgccgccgcg tcctcctctt cctcctccga ggttccgata gccgcccgca 240
cctgcgtctc cgtcggcgag gtggccgtgg gcgcgggtggc tacaggcagc aggcgac 297

<210> 1645

<211> 291

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A7

<400> 1645

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gcatcttacc tttatcacc ttgtgctgc aacaatcatc agccctatta caacagttac 120
ctttggtgca tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag 180
caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat 240
tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta c 291

<210> 1646

<211> 262

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A8

<400> 1646

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gtggaaacat ttgctagtta cttgaaagat tattacattg gaaaatttgg ggcgttagtt 120
gcatgatatg atcagcaata ttcgaagaac acaactcctg ctgaatcctg atatagacta 180
tgggtgtacc aagtttgcag tgaggttgca tatttgcagg tggcaccaaa gaaccatagt 240
gttcgttccc cagagatcga ca 262

<210> 1647

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-A9

<400> 1647

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gccattacta tgagaaggta tcgtttcagt tgtattttgt gacacgagag aaagtcagga 120
gtataaagca gttacctgtt aatgtaaaat ccatcaggga gagcctgaat tctgtgctat 180
tacatcatca aaactccatg tttagccaaa acatgctgtc attgtcagag gatccatcat 240
tgatgatggc attttcaatg gcacgtcgtg cagctgcggt gccgcttcta ttagtcaatg 300
gcacctataa gtcaactgct agcacatacc ttgattctgc tattctgcaa catcagctac 360
agaagctaaa tgagcacaat tcaactgaaa 389

<210> 1648

<211> 266

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B1

<400> 1648

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tgcacacctta tgctccttgc tctttctgca tgtgttgcta acgcgaccat ttttcctcaa 120
tactcacaag ctctatagc tgcccttctt ccccatacc tttcatcaat gaccgcttta 180
gtatgtgaaa acccagccct tcaacctac aggatccagc aagcaatcgt agcaagcaac 240

ttacctttat cacacctgtt ctttca

266

<210> 1649

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B10

<400> 1649

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tgcgccttgg tctttctgca agtgcctgcta cggcgaccat tttcccacaa tgctcacaag 120
ctcctatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
acccaattct tcaaccctat aggatccaac aggcaatcgc agctggcatc ttacctttat 240
cacccttggt cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat 300
tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
actctcagca acaacagttt cttccattca accaactagc tgcattgaac tctgcttctt 420
atttgc 426

<210> 1650

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B11

<400> 1650

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gagattttcc ctccttatgc tccttgctct ttctacatgt gttgctaacg cgacaatttt 120
ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgcagc 240
aagcaacata cctttatcgc ccttggtgtt tcaacaatca ccagccctat ctttggtgca 300
gtcattggta caaaccatca gggcacaaac gctgcagcaa ctctgtctac ctgtgatcaa 360
ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattcaa 420
ccaact 426

<210> 1651
 <211> 424
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-B12

 <400> 1651

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 cgttgctctc ctggcgctcg ctgcgagcgc cgctccagt acaagcggcg gctgtggctg 120
 ccagacacca ccgtttcatc taccgcctcc gttctatatg ccgcctccgt tctatctgcc 180
 gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg 240
 ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt 300
 cgagttcctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc cacagtgcc 360
 ggcgctgcag cagcagtgct gccaccagat caggcaggtg gagccgctgc agcggtagca 420
 ggcg 424

<210> 1652
 <211> 269
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-B2

 <400> 1652

gcaacataga aagtagaatc cattagcaac aatagagcaa caatggcgac caagatagtt 60
 tcgctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180
 gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240
 atacctttat cgcccttggt gtttcaacc 269

<210> 1653
 <211> 249
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-B3

<400> 1653

atacaatgaa taatacaata tttatatatttc atcaccttct tccgctaaaa gcgtacgcat 60
ccaaatcctg catgatctca caatacttac tatcaacaaa ttccattatt acacactttt 120
ctacaatctc ttacttcaat ccacttctaa cattcaacta aataaatata ttcaatacta 180
ctagcaattt ccactatcat cttataccat ccaatttact acttactaca tcaattcatc 240
acccatata 249

<210> 1654

<211> 266

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B4

<400> 1654

ctcaatgctc acaagctcct atagcttccc ttcttcccc ataccttcca tcaattagag 60
cgtcaatatg tgaaaaccca gctcttcaac catataggct tcaacaagca atcgcagcaa 120
gcaacatacc tttatcgccc ttgttggttc aacaatcgcc agccctatct ttggtgcagt 180
cattggtaca aaccatcagg gcacaacagc tgcagcaact cgtgctacct ctgatcaacc 240
aagtagctct ggcaaacct ttctcc 266

<210> 1655

<211> 248

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-024-Q1-K1-B5

<400> 1655

gttgttgcaa caatcgccag ccctatcttt ggtgccgtca ttggtacaaa ccgtcagggc 60
acataagctg caggaactcg cgctacctgt gatcaaccaa gtcgctctgg caaacctttc 120
tccctactct cagcaacaac aatttcttcc attcaaccaa ctgtctacac tgaaccctgc 180
tgcttatttg cagcaacaac tattaccatt cagacagcta gctactgcct actctcagca 240
acaacaac 248

<210> 1656
 <211> 262
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-B6

 <400> 1656

 ggtgcgccca aggcggaaag aagacggcga ccatggcgaa gcagcagaat ccgatcgcca 60
 tcccgatgcc gctgtcgctg tcgctgcccc tcgtcctcgt cgcgctgctc ctgccggccg 120
 cccgcggcgc cgcggagacg ccgcagtaca cgacggtgca cgcggagtcg gacttcgagg 180
 tgcggctgta cggcgacacc gtctggatgt ccgccccac cccggacatc ccttccttcc 240
 acgtcgcgca ccaagctcgg ct 262

<210> 1657
 <211> 270
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-A1

 <400> 1657

 ctagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat tttgcttgct 60
 tatgtctcctt ggtctttctg caagtgtctg taccgcaacc attttcccac aatgctcaca 120
 agctcctata gcttcctttc ttccccata cctctcacca gcggtgtctt cagtatgtga 180
 aaacccaatt cttcaaccct acaggatcca acaggcaatc gcagcaggca tcttaccttt 240
 atcacccctg ttcctccaac caacgcgtca 270

<210> 1658
 <211> 260
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-024-Q1-K1-B7

 <400> 1658

 caacaatggc taccaagata ttatccctcc ttgcgttct tgcgcttttt gcgagcgcaa 60
 caaatgcgtt cattattcca caatgctcac ttgctccaag ttccattatt acacagttcc 120
 tcccaccagt tacttcaatg ggcttcgaac acccagctgt gcaagcctat aggctacaac 180

aagcaattgc ggcgagcgtc ttacaacaac caatttccca gttgcaacaa caatccttgg 240
cacatctaac aatacaaacc 260

<210> 1659

<211> 98

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H7

<400> 1659

caccaccttt tcattctacct ccttctttct atatgccgcc tcctatctat ctgccttctc 60

atcaacatct ctcaaccatt tcaatacccc actcaacc 98

<210> 1660

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H8

<400> 1660

aattccccggg gttcaggagg tccttaattt ctgctggcat ttctcattct agaagttcaa 60

gcatcccatc gcagcaccgt ggaaattcat ccacatcaca tgagattagg aatcatcagc 120

caggatcaag ctctcgtgca catcagcagc accccttaag acccggtcat tcctctgtag 180

acaggcagag ctctgggttac ttggaccttc agtcttttat gcagaccata gtttcaagg 240

aaggaggcag accaatgtca gagatccgca atgtcttcga tcagattcgt caggggagaa 300

atgcacgatt ggaggatttg cttctcattg accggtcact tattatgaga cgaagcta 360

<210> 1661

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H9

<400> 1661

ggaagattat gggttcccaa gggctatagc atttcttctt tctgcaatcc gcagttcagc 60

agttgttgct gtgacatgtg acaaagagat aattactggg ggccacgttg atggttcatt 120

gaagttgata tccctagatg gagcgaagac aattgaaact gcttctgggc atattgctcc 180
 agtgacatgc cttgcgctgt cacctgatag caactacctt gtgacagggt ctagagatac 240
 cacagttata ctctggagga ttcattcagac aggtctctca cataagaaaa atgctcaaga 300
 acctccaccg actacaccaa cgacaccacg cagtcctctc tctggcagca ctagcaccat 360
 gagcagcctc tcagaaacaa agagacgtcg cgttgaagggt ccaatgcatg taatgagagg 420
 acatctt 427

<210> 1662

<211> 402

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-A1

<400> 1662

gagatagagt cttttttact ttctatcgat gatgagataa actctctttt gaacaaagga 60
 ctgctctgag atgccgaact agcaactcaa cgagaacgta tcttgaggat cagtgtgat 120
 ttgacaatt tcaggaaaag gacagaaaat gagaagctta acatgatgga aaatgtgcaa 180
 ggggaactta tagagagctt ttgacctgtt ctcgacaact ttgaaagagc gaaagtgcaa 240
 ataaagggtg aaacagaggg agaggagaaa ataaataata gctaccagag catntaatag 300
 caattcatcg agattttgaa ttcattgggc gttgaagatg ttgaaaacgg tcggaanacc 360
 atttgatccc atgcttcatg aggctattat gagagaggaa tc 402

<210> 1663

<211> 408

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-A10

<400> 1663

gagaccaaca agcaacatag aaagtggaat ccagtagcaa caacagagca acaatggcga 60
 gcaagatatt gtccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
 ttttccctca atgctcacia gctcctatag ctccctctct tccccatac cttccatcaa 180

tgatagcttc agtatgtgaa aaccagctc ttcagcccta taggctcaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt tgtttcaaca atcgccagcc ctatctttgg 300
tgcagtcatt ggtacaaacc atcanggcac agcagctgca gcaactcgtg ctacctgtga 360
tcaaccaagt agctctggca aacctttctc cctactctta gcaacaac 408

<210> 1664

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-A11

<400> 1664

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gcagattgag cagctcaagc aggagatgga tgatgccaca cgtggggcag ataatatcag 120
aagtgatatt ggtgccctcg ctcagagata tacagtaatt gaccgtgagc aggattgtgg 180
ggtttgccgg cgcanaatat tgactgttgg agggttgcac caggtaggaa gaagctatac 240
atctgggtgga cacatggccc ccttttatgt gtttcctgt ggacatgcct tccatgcaaa 300
ttgcttgatt ggacatgtga ctcgttgag taaccaagt caagctgaga gaatattgga 360
ccttcagaaa cggcttagct tgatggacag gaaagcagca naagacaatg gggcaagt 419

<210> 1665

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-A12

<400> 1665

cacatgatat aagcagaagt gaaagtcagg caggaactgg acttggtgag tcagatagcg 60
gggaaccact ccaaacacgg acgtttgcca atgggtatgat gattcaggag ttagagatgg 120
gcaaacctga tggtaaaaag gccagccgtg ggaagaaggt ttctgttaga tatattggca 180
agctaaagaa tggcactatt ttcgactcca acgtcagtg aagacctttt gagtttagac 240
taggtgttgg gcaggttatc agtggctggg acgttggcgt caatgggtatg cgggttgggg 300

acaaaaggag actcaccatt ccaccttcca tggggtatgg gagcaaaaga gtggggcaga 360
taccacagaa ctcaactctc atcttcgatg tggagctggt gaacgttaaa tgaaatgaga 420
ag 422

<210> 1666

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-A2

<400> 1666

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caatgctcac ttgctcctag ttccattatt ccacagttcc tcccaccagt tacttcaatg 120
gccttcgaac acccagctgt gcaagcctat aggctacaac aagcgattgc ggcgagcgtc 180
ttacaacaac caattgccca attgcaacaa caatccttgg cacatctaac attacaaacc 240
atcgcaacgc aacagcaaca acaggtccta ccagcactga gccaaactaac catggtgaac 300
cctggctcgt acttgcaaca gcagctgggt gcaccaacc cacttgctct agcaaacgta 360
gttgcaaacc agcaacaaca acaactgcaa ca 392

<210> 1667

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-A3

<400> 1667

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cgttcatgag atttagaggc atgtgctaca aatgcagttc tggacataat aactgaatth 120
gagcatcgca ttcttggtgt gctgaatctt atcttgatta tggcttcggc aacatcctgg 180
aagaggaatt tatggtcaac tgagatcatc tccaagaccg agagggctaa cagaaaacat 240
cagatttcag catccaatta ctcttgacta acgttccact ctttgcaaaa ccattgtgcc 300
ggcaaggagg gctactatth taggtccggt taacgtgtgt aagtagcccc gtctatgaga 360
aaatggacaa agaatcgag cctcattcag catgaattac caacgatggt tgactactac 420

tagt

424

<210> 1668

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-A4

<400> 1668

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cccagcggcc ggcgacttcg tgctgtccca ccagcagacg ctgccaggct tctctccgcc 120

gggctcctac acgatctaca tgaagattgt cggggacgac aacgaggagc tgagctgcat 180

ctcgttcggg ttcagcatcg gtttcgtcgc gtccagctga acgcgtccga gcccgggcac 240

gagaggcagc cagcccatgg atgtaattac gtgaagcaca ctctgtatcc tatgacttcc 300

aagtgtctaa gtccatgtaa gctttttggg ggtgtctgtg ttcaactgag acgtttttat 360

ccggagttga acatcacagt aaagcaaagt cactgttacc atgtaatgga actctgagcg 420

cttgatgggc cccgt 435

<210> 1669

<211> 371

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-A5

<400> 1669

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gttctgcatt gtgaatagag gttcatctct gtgattagat tgccaccgcc gctgctttct 120

actcattcga cgaatgtttt gcaaagaaga aatctggttt atcttaccct cgattccttc 180

ctatgataca actaacaaaa tgaattggta cattcaggta tctttaaaac cttttcactt 240

ccaaattaga atgatatcat gctcaagagg taacattttc tgatgttttt tattttaata 300

gtaattattg gtcgctgact ttntaaaact atttgtgttg tacttcaagc atcttctaca 360

ctgcatctaa g 371

<210> 1670
 <211> 268
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-A6

 <400> 1670

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 ttgcgagcgc aacaaatgcy tccattattc cacaatgctc acttgctcct agttccatta 120
 ttccacagtt cctcccacca gttacttcaa tggccttcga acaccagct gtgcaagcct 180
 ataggctaca acaagcgatt gcggcgagcg tcttacaaca accaattgcc caattgcaac 240
 aacaatcctt ggcacatcta acaataca 268

<210> 1671
 <211> 406
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-A7

 <400> 1671

 cgggtgacacc attgagtacc aaaggctcgt gaggaagaa gtgcggcctg cgctgaagga 60
 tatggctctgg gcttggcaga gcgaccggca ccagcagcag cagcagcgcg agcagtctgt 120
 gcaaggagag cagcagcagc agcagcagcc gttgtcgtct ttgccgacgc agcagtagtc 180
 actgcaccac cagttgcgac cgccataacc agatcacgtc aaaactgcac caagccgcac 240
 aggactagta actcccactt gcacgcagc ttatgtgatt gcggaattgt gtttcagggt 300
 acctgcctgc tgcggtagga cctaaagcgc ctacctggct accatttggc atttttttgt 360
 atactgtacg tacattagag taataaaca acatgcttaa cttttc 406

<210> 1672
 <211> 327
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-042-Q1-K1-A8

 <400> 1672

 agtggagctt gtacagcttc ctctagatgc aatgactgga ctgtgcaaag gttatggggt 60

tattcagttt ggccggcttg aagatgcaaa agctgcacag agtttgaatg ggcagcttga 120
tattgccggc agagttatta aggtttcagc tgttactgat catgtgggaa gtgcaagcta 180
gtggagctac tactggagat ctagatgatg atgaaagtgg aggcttggcg ctaaagtcaa 240
gctccagagc tgctctaata ctcaaattgg acaggagtgg tacagcaacc agcttaactg 300
gtggtattgg tgctgctgga gtggttg 327

<210> 1673

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-B10

<400> 1673

aagggtattg attatagaag agaatcctag aactgaaact acattgtttg gagatagggg 60
gtcggaaatc ctgatgagc ctcagatggt gatgtctgct gaacctttcc atgcacctgc 120
ttatttgaac ttggaggctg gaaattcaag cccaacgggt catgtcgagc taacaaattc 180
cgatgagaaa ctggccaatc ttgcagaaga caagaatcgg cgactttcag atgcaagcca 240
gttaagaaca ggttcaaacc caatggtcga tgttgagcta acaaatttcg atgagaaact 300
ggccaatctt gcagaatgca agaatcagcg actttcagat gcaagccact taagaacagg 360
ttcaaaccga atggatgatg t 381

<210> 1674

<211> 366

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-042-Q1-K1-B11

<400> 1674

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gtccgaaaag gtttcaaact cggngaaaga ctgcttcgcc cagcaatggt caaagtgtct 120
gcaggaccag gccctgaaaa gtttggagat gatgacccaa cagctgtcga aggtagtgtg 180
gcacctcaaa aggttgacga agtcgaagac gacggttttg gtgccggcga tgcagaatag 240

gtggctggag cttgatctgt gaatcaacaa gaacagggtcc agaaattttg atgcttttct 300
 ggagcgtgcc aagcaggaaa taggatggta ccaattcgtt caaactatag agttaagtcc 360
 caaaat 366

<210> 1675
 <211> 125
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-042-Q1-K1-B12

<400> 1675

ggcctcgatc cgatccgccg agtgcactct cacctttgcc cactccgatc gaatcgaggg 60
 gggcctaggt cgagaagaag atgataaccc tcaaaagctc cgatggctag gagttcgagg 120
 tggaa 125

<210> 1676
 <211> 341
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-041-Q1-K1-H6

<400> 1676

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 cctggctctc gctgcgagcg ccacctccac gcatacaagc ggcggtgctg gctgccagcc 120
 accgccgccg gttcatctac cgccgccggt gcattctgcca cctccggttc acctgccacc 180
 tccggtgcat ctcccaccgc cgggtccacct gccgccgccg gtccacctgc caccgccggt 240
 ccatgtgccg ccgccggttc atctgccgcc gccaccatgc cactacccta ctcaaccgcc 300
 ccggcctcag cctcatcccc agccacacnc catnngcccg t 341

<210> 1677
 <211> 418
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-041-Q1-K1-G10

<400> 1677

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ggtagtcaac tagccatggg gaccctgcc gcctacctac aacagcaaca actgctttca 120
tctagccgcg tgcgtgtggc caatgcacct acatacctgc aacaagaatt gttgcaacag 180
attgtaccag ctctaactca gctagctgtg gcaaaccctg ttgcctactt gcaacagctg 240
cttccattca accaactaac tatgtcgaac tctgttgctg acctacaaca gcgacaacag 300
ttacttaatc cattggcagt ggctaacca ttggtcgctg ccttcctaca gcagcaacaa 360
ttgctgcat acaaccgggt ctctttgatg aatcctgtct tgtcgaggca gcaacca 418

<210> 1678

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G11

<400> 1678

gcattcaaaa acacaccaag cgaagcgcac tagcaacgac ctaacaccaa tggctaccga 60
ggatattagc cctccttgcy cttcttgccc ttttagtgag cgcaacaaat gcgttcatta 120
ttccacagtg ctacttgct cctagtgcc gtattccaca gttcctccca ccagttactt 180
caatgggctt cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga 240
gcgccttaca acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac 300
aaaccattgc aacgcaacaa caacaacaac agtttctgcc atcactgagc cacctagccg 360
tgggtgaacc tgtcacctac ttgcaacagc agctgcttgc atccaacca cttgctctgg 420
cgaacgtagc t 431

<210> 1679

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G2

<400> 1679

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atcatcaagg gggaacatta atatgcacgt gcggataacc cgatactgtt accatattgc 120
 cacaatgctc acatgctcct atagcttccc ttcttcccc gtacctatca ccagcgggtgt 180
 cttcgggtatg tgaaaaccca attctttaac cctataagat ccaacaggca atcgcagctt 240
 gcatcttacc ttcattaccc ttgatccttc aacaatcatc agccctatta cagcatttac 300
 ctttggtgca tttattggca caaaacattc aggacaaa 338

<210> 1680

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G4

<400> 1680

ccgggctcga cgctatcgag aacatgaacg gcaaggagct cgacggccgt aacatcaccg 60
 ttaaccaggc ccagtcctgt ggcggtggcg gtggcgggcg tggctacggc ggcggtcgcg 120
 gggcgggcg ctatgggtggc gggcgccgtg acggcggtta tggcgggcgt ggcggtcgcg 180
 gcggtcggcg cgaggggtgt ggcggcggtc acggagggcg tggcggttac ggcggtcgcg 240
 gcgaggggtg tgggtggcgc tacggcgcg gcggcgggcg ctggagggac tgatgtgtgg 300
 gcccatactg gcttcggccg agttatctca tctatctata gtatcgtgtt acccgtttcg 360
 ct 362

<210> 1681

<211> 346

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G5

<400> 1681

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 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgcagct ggcattctac 240
 ctttatcacc cttgttcttc caacaatcat cagccctatt acaacagtta ctttggtgca 300

atttattggc acaaaacatc agggcacaac aacctacca acaaac

346

<210> 1682

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G6

<400> 1682

agaccagcaa gcaacataga aagtagaatc cattagcaac aatagagcaa caatggcgac 60

caagatattt tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat 120

tttccctcaa tgctcacaag ctcttatagc ttcccttctt ccccatacc ttccatcaat 180

tatagcttca gtatgtgaaa acccagctct tcaaccatat aggtttcaac aagcaatcgc 240

agcaagcaac atacctttat cgccttgggt gtttcaacaa tcaccagccc tatctttgggt 300

gcagtcattg gtacaaacca tcagggcacc aaccagctg 339

<210> 1683

<211> 335

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G7

<400> 1683

attcagaaac acaccaagcg aagcgcacta gcaacgacct aacaacaatg gctaccaaga 60

tattagccct ccttgcgctt cttgcccttt ttgtgagcgc aacaaatgcg ttcattattc 120

cacaatgctc acttgctcct agtgccatta ttccacagtt cctccacca gttacttcaa 180

tgggcttcga acacctagct gtgcaagcca acatgcaaca acaagcgctt gcggcgagcg 240

tcttacaaca accaattgcc caattgcaac aacaatcctt gccacatcta acaatacaag 300

ccatcacaac gcaacagcaa caacagttcc ttacc 335

<210> 1684

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G8

<400> 1684

gtttgtttta tttcgttcga tctcaagcta ttcggacggt gctcgatctg aattcccaag 60
tacaggagcg tcaaacgatt cactcccacc gaatttggtt tgtgtcctcg tagacctgtg 120
cataaattgt agtaccatcat ttcgacggca gtcaccattc tccacacctt gtcgtctgca 180
taagccggac gattggtggg tgggtgggaat ggaaccgcga gaagcataga agacatttga 240
tcgtcggcgc gtctatgcga tagtcctgcc attgcaaaca tactacagat gattaactga 300
caaggtgatg atgaacgagc agcggcca 328

<210> 1685

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G9

<400> 1685

atcgcccata atattttgag cattcaataa cacacaaagg gaagtgcact agcagactgg 60
ctaacaacaa tggctaccaa gatattagcc ctctttgcgc tcttttcctt ttcagtgcgc 120
gcaacaactg cattcattat tccacaatgc tcaactgtct ctaatgccat tattccacag 180
ttctctccat cagttacatc aatggggcatc gaacacccta ttgtgcaagc ctataggcta 240
caacaagcgc ttgcggcgag cgtcttataa caaccgtttg cccaattaca acaacaatcc 300
ttggcacatc taaccataca aaccatcgca acacaactag agcaacagtt tgtgcccgcg 360
ttgagccaac tagccgcggt gaacctgtgc tctacttgc aacagcaact gcttgca 417

<210> 1686

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H10

<400> 1686

gcggcaacat agaaagtaga atccattagc aacaatagag caacaatggc gaccagtata 60
ggttccctcc ttatgtcctt tgctctttct acatgtgttg ctaacgcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttgccccat accttccatc aattatagct 180

tcagtatgtg aaaaccagc tcttcaacca tatacgcttc aacaagcaat cgcagcaggc 240
aacatacctt tatcgccctt gatgtttcaa caatcaccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcatggc acaacagctg cagcaactcg tgctacctgt gatcaaccaa 360
ctagctctgg caaacctttc tccctactct cagcatcagc actttcttgc attcaaccaa 420
ctggatacac tgaaccc 437

<210> 1687
<211> 431
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H11

<400> 1687

cagcaagcaa catagaaagt agaatccatt agcaacaata gagcaacaat ggcgaccagg 60
atattttccc tccttatgct ccttgctctt tctacatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180
gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgagca 240
agcaacatac ctttatcgcc cttgttggtt caacaatcac cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta c 431

<210> 1688
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H12

<400> 1688

ggtggaggta gcgcctccgc aggccatgga ggtgcgcgtc aagatcctct tcagctcgct 60
ctgccacacc gacgtctact tctgggaggc caaggggcag actcccgtgt tccctcggat 120
ctttggccac gaggctggag gtatcataga gagtgttga gaggggtgtga ctgacgtagc 180
tccgggagac catgtccttc ctgtgttcac tggggagtgc aaggagtgtg cccactgcaa 240

gtcggcagag agcaacatgt gtgatctgct caggatcaac accgaccgcg gtgtgatgat 300
 tgccgatggc aagtcgcggt tttcaatcaa tgggaagcct atctaccact ttgttgggac 360
 ttccaccttc agcgagtaca ccgtcatgca tgtgggttgt gttgcataga tcaaccctca 420
 ggctccccctt gata 434

<210> 1689
 <211> 280
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-H2
 <400> 1689

ttatttcatt cgaccttcat ctattcgaac cgtactctat cttaagttgg aatttcagga 60
 tcgtgggacg attcactctc acccaatttt ttttttgtcc tctataacct cttcatatat 120
 tgtagtacct tatttcaacc tcagtcacac attctccaca ctttgtctta tgcataaacc 180
 gtaccaattt ataattgtta taaatgaacc tccaaaaaca tataacacat ttgatcttct 240
 tctcttctat tctatatacc tgccatttca aacatacttc 280

<210> 1690
 <211> 364
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-H3
 <400> 1690

gtcagcctag caattagctc atcgactcca gattggagaa ctcgacacca tgaaggtgct 60
 gatcgttgcc cttgctctcc tggcgctcgc tgcgagcgcc gcctccagta caagcggcgg 120
 ctgtggctgc cagacaccac cgtttcatct accgcctccg ttctatatgc cgctccggtt 180
 ctatctgccg ccgcagcagc agccgcagcc atggcaatac ccactcaac caccgcagct 240
 aagcccgtgc cagcagttcg gatcctgcgg cgtcggcagc gtcggcagcc cgttcctggg 300
 ccagtgcgtc gagttcctga ggcaccagtg caagccccgg gccggggccg gaaaccggcc 360
 cccc 364

<210> 1691

<211> 346
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H4

<400> 1691

tcccgogttc aggaggtcct taagttctgc tgccatttct cattctactt gttcatgcgt 60
cccattgcag caccggggga attcattctc atcacatgag attaggaatc atcagcccgg 120
atcacgcttt cgtcctcctg ccaccctccc cggatcatct accgccgcct gtgcatctgc 180
cacctccggt tcacctgcca cctccggtgc atctcccacc gccatagctt caagggaagg 240
aggcagacca atgtcagaga tccgcaatgt cttcgatcag attcgtcaag ggagaaatgc 300
acgattggag gatttgcttc tcattgaccc gtcacttatt atgaca 346

<210> 1692
<211> 317
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-H5

<400> 1692

caattacctc atctacttta gtttgagaaa ctcaacacca tgaatgggct gggctttgcc 60
cttgcgctcg ctggcgctcg ctgcgagcgc cgtctacagt acaagcggcg gatgtggctg 120
ccaaacatca ctgcttcacg taccgccttc attctatatg ccgtctccga actatctgcc 180
gccgcagcat ccaccacaga catggcaata cccactcaa ccaccgcaac taaacccatg 240
ctagtagttc aaatcctggg gcgattacag cgactacaac ccgtaccttg gccagtgcga 300
aaagttcctg aggcacc 317

<210> 1693
<211> 319
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-G1

<400> 1693

gtcgccattg ttgctctatt gttgctaag gcgaccaaga tattttccct ccttatgctc 60

cttgcctcttt ctacatgtgt tgctaacgcy acaattttcc ctcaatgctc acaagctcct 120
 atagcttccc ttcttcccc atactttcca tcaattatag cttcagtatg tgaaaacca 180
 gctcttcaac catataggct tcaacaagca atcgagcaa gcaacatacc tttatcgccc 240
 ttgttgtttc aacaatcacc agccctatct ttggtgcagt cattggtaca aaccatcagg 300
 gcacaacagc tgcagcaac 319

<210> 1694

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-E4

<400> 1694

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 ctcttgctc tttctgcatg tggtgctaac ggcaccattt ttctcaata ctcaaacgct 120
 cctatagctg ccttcttcc ccatacctt ccataatga ccgctttagt atgtgaaaac 180
 ccagcccttc aaccctacag gatccagcaa gcaatcgcaa caagcaactt acctttatca 240
 cacctgttct ttcaacaatc gccagcccta tctttggtgc agtcattggt acaaaccatc 300
 agggcagaac agttgcagca actcgtgcta ccaagtgatt caagcccana ggtaaaggc 360
 ctttcctttg ggggccc aaaaaaaccc cccctttttt ttttttttcc cccccccc 419

<210> 1695

<211> 340

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E5

<400> 1695

ggattttaat aaatggaagg gaaattagtt cgttttcggt ttctcaaggg aaaatgggaa 60
 tcccttgagg gaattgagtt tccaaaatag ccttggtacg atatttacat gtgtttgcc 120
 gcagtgtgaa tcttcatact aagggttagt ttagaaactt aaatccctt tccgattcct 180
 agagattgag tggaaattga ctaatatgc actcaatccc cggaatcccc tgtgttctgg 240
 aactagccct aaatggttta tatgaatatt ctgttcttac cgagttgtga actgctgaac 300

tctagttctg tgtatttgtt acgacacctt agcactaagc

340

<210> 1696

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E8

<400> 1696

aatttggtgg agggatccat gactgtgtcg acgaccagaa agacaaggga tccctgggct 60

attatcaagg ccagggaact aattaagctt ttgtccagga gcgtccctgc acctcaggca 120

atcaaaattc ttgatgatga gatgaactgc gatattatta agattggtgg tcttgtgaga 180

aataaggagc ggtttggtta aaggagggaa cggcttttag gccctaactt gtctacactc 240

aaggctattg agattttgac tggctgctac atcttagtgc agggaaatac tgttgcagcc 300

atgggcaact ataggggaag gggactggaa accaagtga 339

<210> 1697

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E9

<400> 1697

accgaacaag ccctaacagt gtgcgttttc gcacccaac tgcctttctc tctataaggg 60

aaactcctca tcgatcacca ccaagaaca cagtaactag ctagcagatc aaacaagtag 120

cgacagctcg acaaagatth gtgagagtga tccggcgctg agaagagatg gctaagatcg 180

ccgcagccgc cgcggcggcg gcggcgctgt gcttcgcggc cctggtggcc gtggccgtct 240

gccaaggcga ggtcgagcgg cagaggctca gggacctgca gtgctggcag gaggtccagg 300

agagcccgtc cgacgcgtgc cgccaggctc tcgaccggca gctaaccggc ggcggcgctc 360

gcggcccgct cccgtggggc accgggctcc ggatgcggtg ctgccagcag c 411

<210> 1698

<211> 347

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F1

<400> 1698

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tccttatgct ccttggctctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagct ggcattctac 240
ctttatcacc cttgttcctc caacaatcat cagccctatt acaacagtta cctttgggtgc 300
atttattggc acaaaacatc aaggcaccaa caactacca acaactt 347

<210> 1699

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F10

<400> 1699

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atactttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgtttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaacctttc tccctactat cagcaacaac aatttcttcc attcaaccaa 420
ctatctacac tg 432

<210> 1700

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F11

<400> 1700

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tggctaccaa gatattagcc ctccttgccg ttcttgccct tttagtgagc gcaacaaatg 120
 cgttcattat tccacagtgc tcacttgctc ctagtgccat tattccacag ttcctccac 180
 cagttacttc aatgggcttc gaacatccag ccgtgcaagc ctacaggcta caactagcgc 240
 ttgcgggcag cgccttacia caaccaattg cccaattgca acaacaatcc ttggcacatc 300
 taacctaca aaccattgca acgcaacaac aacaacaaca acagtttctg ccatcactga 360
 gccacctagc cgtggtgaac cctgtcacct acttgcaaca gcagctgctt gcatccaacc 420
 cacttgctc 429

<210> 1701
 <211> 383
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-F12
 <400> 1701

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 tagttgtaat tcaataataa agtttttttg atgatgtatg tggccaacca gaaataagaa 180
 gttacattta cagattctaa tgtgaaaaaa agatccaaca cagcatcata aaattgaatc 240
 ttacctttat caaccttgat actctaacia taataaaaaac atattacatc aattacctat 300
 tggagcctta atagagataa aaaatatagt gtcaaaaaaa tacattaaca tagaacaagg 360
 ggggccttct ttataaaatt caa 383

<210> 1702
 <211> 258
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-F2
 <400> 1702

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 acaagcttct atagctttcc ttctttcccc gtacctttta ccagcgggtg cttcggtatt 180

tgaaaaccca attttttaac ccttcgggt tcaaccggca attgcaactt gcaatctacc 240
 cttaataacc ttggttct 258

<210> 1703

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F3

<400> 1703

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 tatctacttc tcgcagcaca gcgggggcga gtgggttgaa gcttgcgata tggagttcat 180
 ctctgggaac aaggcgatca tctactcgtc caggaacggg cacgcgagct acccccaccc 240
 aggctgctac ctgatgggtt ccgagacgct cgggtgtcgga gttagaaacg atgtggcgcg 300
 aagtgatctg tcagtggatt cgagcacgcy gtatggaga 339

<210> 1704

<211> 334

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F4

<400> 1704

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 aaccacagtt gttgccgttc taccagcacg ttgcgcctaa cgctggcacc ctcttacaac 120
 tgcaacaatt gctgccattc aaccaacttg ctttgacaaa ccagcagtg ttctaccaac 180
 aacccatcat tgggtggtgcc ctctttttaga tttcttatga gttatagttc aataataaag 240
 ttttttatct gatgtttgtg gcttcccaga aataagaaag tacatttcta aaaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaacacac aaaa 334

<210> 1705

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F5

<400> 1705

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tttgocctct tatgtctcctt ggtctttctg caagtgtctg tacggcgacc attttcccgc 120
aatgtctgca agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt 180
cgggtatgtga aaaccaatt cttcaaccct acaggatcca acaggcaatc acagctggca 240
tcttaccttt atcacccttg ttcctccaac aatcatcagc cctattacat cagttacctt 300
tggtgcattt attggcacia aacatcaggg cacaaccaac ct 342

<210> 1706

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F6

<400> 1706

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aaccatgaag ctgggtgcttg tggttcttgc tttcattgct ttagtatcaa gtgtttcttg 120
tacacagaca ggcggctgca gctgtggtca acaacaagc catgagcagc aacatcatcc 180
acaacaacat catccacaaa aacaacaaca tcaaccacca ccacaacatc accagcagca 240
gcaacaccaa caacaacaag ttcacatgca accacaaaaa catcagcaac aacaagaagt 300
tcatgttcaa caacaacaac aacaaccgca gcaccaccac caacaaca 348

<210> 1707

<211> 340

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-F7

<400> 1707

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ttggctcttc tgcaagtgtg gctacggcga ccattttccc gcaatgctcg caagctccta 120
tagcttcctt ttttccccg tacctctcac cagcgggtgtc ttcggtatgt gaaaacccaa 180

ttcttcaacc ctacaggatc caacaggcaa tgcagctgg catcttacct ttatcacct 240
 tgttctcca acaatcatca gccctattac aacagttacc tttggtgcat ttattggcac 300
 aaaacatcag ggcacaacaa ctacaacaac ttggtggcta 340

<210> 1708
 <211> 335
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-041-Q1-K1-F8
 <400> 1708

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 ctctatagc ttcccttctt ccccgctacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
 acccaattct tcaaccctat aggatccaac aggcaatcgc agctggcatc ttacctttat 240
 cacccttgtt cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat 300
 tggcacanaa catcagggca caacaactac caaca 335

<210> 1709
 <211> 245
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-F9
 <400> 1709

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 aaatcatacc caaattttta aacccaaaaa ccccaacatt cactttcgac aaccttttta 120
 ccacaaacac aatcccaa atccaaaacaa tcattaacac atctaactt aaaaaccata 180
 acaactcatc acaccacacc acttccccaa cttacccttt ccacccttaa ccccttttcc 240
 cttca 245

<210> 1710
 <211> 355
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-E3

<400> 1710

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ttctaattct tgctggcgat cacctgtacc ggatggacta tgaaaagttc attcaggcac 180

acagagaaac aaatgctgat attaccgttg ctgccctacc gatggatgag aaacgtgcaa 240

ctgcatttgg cctcatgaaa attgatgaag aaggaggat cattgagttt gctgagaaac 300

cgaaaggaga gcagttgaaa gcaatgatng gttgacnnac caccaattaa ccttt 355

<210> 1711

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G4

<400> 1711

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tgctccttta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120

tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180

atatgtgaaa acccagctct tcaaccatat aggtttcaac aagcaatcgc agcaagcaac 240

atacctttat cgcccttggt gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300

gtacaaacca tcagggcaca acagctgcag caactogtgc tacc 344

<210> 1712

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G5

<400> 1712

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aggcaggtgg agccgcagca ccggtaccag gcgatcttcg gcttggctct ccagtccatc 180
ctgcagcagc agccgcaaag cggccaggctc gcggagctgt tggcggcgca gatagcgagc 240
caactgacgg cgatgtgcgg cctgcagcag ccgactccat gcccctacgc tgcattgccgc 300
ggtgtccccc actgaagaaa ctatgtgctg tagtatagcc gctggctagc tagctagtgt 360
agtcatttag cggcgatgat tgagtaaata tgtgtcacgc atcaccatgg gtggcagtgt 420
cagtgtgagc 430

<210> 1713
<211> 447
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-023-Q1-K1-G6
<400> 1713

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aagcaacata cttttatcgc ccttgatgat tcaacaatca gcagccctat ctatgctgca 300
atcattggta caaaccatca gggcacaaca gctgcagcaa ctctgtctac ctctgatcaa 360
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ccaactgtct aactgaacc ctgctgc 447

<210> 1714
<211> 335
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-023-Q1-K1-G7
<400> 1714

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gactaccgac gactcggagc acttcatctg gagggacggc gtcaaggctc cctgcggcaa 120
gctggtgccg tctgcgaaca acgacggccc gctcgagtac aacgagtac ccgtgtacga 180

ccccaatctg gtgagcatct gcttcctgga cggggtgaac tactaggagc agaacatgga 240
 tgtggtgccg ccggacgacc agtgaaggag tcgtctcggt gagtgtccta gggcatggca 300
 tggcatgccca ggccaggaag tgggtgggacc catatt 335

<210> 1715
 <211> 375
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-G8
 <400> 1715

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 gctccttggt ctttctgcaa gtgttgctac cgcaaccatt ttcccacaat gctcacaagc 120
 tcctatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaac 180
 cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccattatc 240
 acccttggtc cttcaacaac cgtcagccct attacagcag ttacctttgg tccatttggt 300
 ggcacaaaac atcaaggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 360
 ctctcagcaa catca 375

<210> 1716
 <211> 399
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-G9
 <400> 1716

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 aacgcgacaa tcttcctca atgctcacia gctcctatag cttcccttct tccccatac 120
 cttccatcaa ttatagcttc agtatgtgaa aaccacagctc ttcaaccata taggcttcaa 180
 caagcaatcg cagcacgcaa cataccttta tcgcccttgg tgtttcaaca atcaccagcc 240
 ctatcttttg tgcagtcatt ggtacaaaacc atcagggcac aacagctgca gcaactcgtg 300
 ctacctgtga tcaaccaagt agctgtggca aacctttctc cctactctca gcaacaacaa 360
 tcttctgcat tcaaccaact gtctacactg aacctgtg 399

<210> 1717
 <211> 400
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-H11

<400> 1717

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 tgctgtgctc aagaagggtg agcctaattg tcacaagata gtggaacatc gcaggaagta 180
 tgagagggtt agaaaagaga gggaggaaaa gagagcgcag cgtgatcggc ttcgtcaacg 240
 tgcagaggcg caggctgctt acgacaaggc caagaagaaa gagcaatcgt caagtcgctc 300
 atcaggaggt gcatctccca gaggccttcc tggacggatg cctggtggtg gtttccttag 360
 agggatgccc ggtggagggt tccccgggg tgccatgcct 400

<210> 1718
 <211> 307
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-H2

<400> 1718

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 cttcttgcaa cagcaacaat tgctaccatt ctaccacag aatgtggcaa acattgttgc 120
 cttcttacia caacaacaat tgctaccatt tagccaacat gctttgacga atcctaccac 180
 cttattgcaa ccgcccacca ttggtggtgc catcttctag attttttatg atttatactg 240
 taataataaa gttctcatgc tgatatgtgc gacctctcag taataaagta ttagagatct 300
 atattttt 307

<210> 1719
 <211> 429
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-H3

<400> 1719

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ttttgcttcc ttatgctcct tgggtctttct gcaagtgtcg ctaccgcaac cattttccca 120
caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaaccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc 240
atcttacctt tatcacctt gtctctccaa caaccgtcag ccctattaca gcagttacct 300
ttgggtgcatt tggtggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagga 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420
aactctgct 429

<210> 1720

<211> 288

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-H4

<400> 1720

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acaaatgcgt gcattattcc acagtgtcga cttgtctcta gtgccattat tccacagttc 120
ctcccaccag ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa 180
ctagcgcttg cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg 240
gcacatctaa ccctacaaac cattgcaacg caacaacaac aacaacaa 288

<210> 1721

<211> 320

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-H5

<400> 1721

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ggagaggagg aggaggagga gatggccggt agggagagcg gcgggatggc ggcggcgctg 120
cgctgcgctg gaaggatcgg gatcctggcc accgtcgcag tgaacctcgc gtggatcgcg 180

acgtacatcc gccggcgcta cttcggcggc gggaaccgat ccgacaacaa cgggtggcggc 240
 ggtgaagtgg agccgtcaag agggaagccg ccggtcactt cggactccat cgtcaacctc 300
 gatcatggcg acccgactat 320

<210> 1722

<211> 356

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-H6

<400> 1722

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 tattccacag tgctcacttg ctccctagtg cattattcca cagttcctcc caccagttac 120
 ttcaatgggc ttccaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc 180
 gagcgcctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct 240
 acaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgaaccacct 300
 agccgtggtg aaccctgtca cctactttgc acagcagctg cttgcattcc acccaa 356

<210> 1723

<211> 367

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-H9

<400> 1723

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 gctcgcgcat cgctgggcgg cgggcgctgc ccgctgctgt gcgggtggaa cccgatccct 180
 gacgtgagcg actcgcacat ccaggagcta ggcgggtggg cgctggggca ggcgaagcac 240
 cagatgctgg ccgtccacgg gctgcggttc cgacgcgtgg tgcgctgcga gcagcaggtc 300
 gtgtccggga tgaactaccc gctctacgtc gacgccgacg accccgacgg tcgcaccgag 360
 cactacg 367

<210> 1724
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G3

<400> 1724

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atgcagagct ctaaagacaa agcattctac acctaagtat ggccatcatc accatgcac 120
cttaattggc aaggcttctc aaaagcaciaa gggaaaaatc tctcgttctc ttgctgcaaa 180
aacagctctt gctatccggt atgatgccct tggatgatggg gaggacaact ccattggcac 240
tgagagtcga cttaagcttg agacacggct tcaagttctt gagggtagag aacttgggaa 300
atctgctggg tccacaaagg ggaagcccaa gatagaagtg tatgaaaagg accggaagaa 360
gggtactggg gctttaacaa ctctgctaa gacatataac cctgcagctg atctgggtact 420
cacggaagaa aca 433
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<210> 1725
 <211> 292
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F1

<400> 1725

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tacgggggag ggggtaccca gatcggcaga cgtgcatcca aatgtacaca cgtcgcgttc 120
caatagagga cgatcagagg atccacgcta gctaccaaag gctctatgac agaaggggtca 180
aacgagtgct cgatctacgg tagaacagaa gtgttagcga tggcgagagg cctcataagt 240
agaacgtgcc ttgtcaacac tagcggcggg aactctgacc agcttgtcga gg 292
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<210> 1726
 <211> 415
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-023-Q1-K1-F10

<400> 1726

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcggtgtct 180
tcaatgtgtg aaaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtccatg tgggtggcaca aaacatcagg gcacaacaac tacaacaact ngtgctagca 360
aaccttgctg catactctca gcaacattca gttcttccat tcaaccaact ggctg 415

<210> 1727

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F11

<400> 1727

gagcattcag aaacacacca agcgaagcac attagcaaca acctaacac aatggctacc 60
aagatattat ccttccttgc gcttcttgcg ctttttgcca gcgcaacaaa tgcgttcatt 120
attccacaat gtcacttgc tccaagttcc attattacac agttactccc accagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctataggc tacaacaagc aattgctgcg 240
agcgtcttac aacaaccaat ttcccagttg caacaacaat ccttggcaca tctaacaata 300
caaaccatcg caacgcaaca gcaacaacaa ttcctaccag cactgagcca cctaaccatg 360

<210> 1728

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F12

<400> 1728

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tgctccttta tgctccttgg tctttctgca agtgctgcta cggcgaccat tttcccgcaa 120
tgctcgcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg 180

gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc agctggcatc 240
 ttacctttat cacccttgtt cctccaacaa tcatcagccc tattacaaca gttacctttg 300
 gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
 cttgctgcct actctcagca acagc 385

<210> 1729

<211> 236

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F3

<400> 1729

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 aggcaaccgc gctattaaca tgaccgtgtg cgcacgccc aactacgtac gccattgccg 120
 cgatgtcagc ctgcgtctgc tggatacctg atgcattgac ctgtactacc agtatcaact 180
 ctatgccatc gtacatattt atgatacgat cggtgagctg aaatactgtg catatg 236

<210> 1730

<211> 333

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F4

<400> 1730

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 cgcttcatct accggctccg ttctatatgc cgcctccgct ctatctgccg tcgcagcagc 180
 agccgcagcc atggcaatac cccactcaac caccgcagct aagcccgtgc cagcagttcg 240
 gatcctgcgg cgtcattgcag cgtcggcagc ccgttcctga gccagtgcgt cgagttcctg 300
 aggcaaccagt gcagcccggc ggcgacaccc tac 333

<210> 1731

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F5

<400> 1731

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acaagctcct atagcttccc ttcttcccc gtacctctca ccagcggtgt cttcggtatg 180
tgaaaacca attcttcaac cctataggat ccaacaggca atcgagctg gcattctacc 240
tttatcacc ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca 300
tttattggca caaaacatca aggcacaaca actacaacaa cttgtgctag caaaccttgc 360

<210> 1732

<211> 193

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F7

<400> 1732

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gtgccctctt ttagatttct tatgagttat agttcaataa taaagctttt tgtctgatgt 120
ttgtggcttc ccagaaataa caaagtacat ttatcaatac tacaagtatc aactctatac 180
caacgtaaaa ata 193

<210> 1733

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-F8

<400> 1733

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cacccttggt gtttcaacaa tcgccagccc tatctttggt gcagtcattg gtacaaacca 120
tcagggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta gctctggcaa 180
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ctcagcaaca acaacttctt ccattttaacc aattggccgc actgaacccc gctgcttatt 360
 tgcagcagca aatactacta ccatttagcc agctagctgc agcaaaccgt gcttccttct 420
 tgacacagca acagttgctg 440

<210> 1734

<211> 373

<212> DNA

<213> Zea mays

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<400> 1734

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 tatgtttcttc cccattttct cttgaagatt tcttggggaa accctacgtg gctacactac 180
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 gtgggaagta gcagcacata caccttcatt ctcataataa tgctgtccag acgcagacat 300
 gatttaatca gcaacttctt gtcagaggat gcttagcttg aactagactg tcgcactgat 360
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<210> 1735

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G10

<400> 1735

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 cgtacgtaaa tgaatggtgc aaagatgggg ctgcgcttat cgggggctgc tgcattgacaa 180
 ctccaaacac tatcagggcc atacacagaa ctcttaacca aggctgtcac aagcatcagt 240
 tacctgtagc atagatctgt gctccactcc tgatgctcta ctaccagcaa tacctcgagc 300
 tgtatacccg agattgctta accagcgcga accaatatac tgttgctgtg tctcctgcta 360
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<210> 1736

<211> 324

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G11

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tacatcagcc tgcagcaact attgctacct ttgatcatcc atgtagcttt ggcaaaccta 180

tctctctact cttatcagca acaatatgtt acattcaacc gactgattac actgtaccct 240

gctgcgtatt agcagtaacc actattacca tttatgcagc tagcgtctga ctactttaag 300

caacaacagc tgcattccatt taac 324

<210> 1737

<211> 153

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G12

<400> 1737

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gattagtaga ttgtacagct acgggagggg gctatataaa attacggaag tcggccaaaa 120

aaattacatg agagccatat agttctactt tct 153

<210> 1738

<211> 335

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-G2

<400> 1738

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tgcgcagcac cgacggcctt ccctgcgcac tactttgaaa ccgtggatca ccgcactggc 120

gcatcgcgta gcttcaacgt tatcgacggg ggccctgcgcg caaacaatcc ggtgcttatt 180

tattgcttgc ttgggttatag tagtagttat ttttctttct tctggctggg ttttgacgac 240
tagcatgaaa tcatgtgcgt atgttgctat gatctttttg tccctgtccc tgtcctgtcc 300
tgtgatctga cagactctgg tggcgattgg tgaga 335

<210> 1739

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-E9

<400> 1739

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gctactgcct ttaccagtaa gatagatggc caacttttct tgaagcctaa caggccagca 120
cttgtttgtga gcagcacaag ctggactcca gatgaacatt taaggatact tttggaagca 180
ggactaatgt acgacagacg cgtcgctgca gctttagggtg aagatgattc aatggatgaa 240
gggcaactgt ggattgatat caataacggg aagcagattg tctacccaag attactgatc 300
attattacag gtgaaggacc tgataggacg aaatatgagg atcaaattaa aaggtcgaag 360
tcgacacgtg ctggcttgcg gacaatgtgg cttgcatcag aggacta 407

<210> 1740

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-D4

<400> 1740

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caaatgcgtt cattattcca caatgctcac ttgctccaag ttccattatt acacagttcc 180
tcccaccagt tacttcaatg ggcttcgaac acccagctgt gcaagcctat aggctacaac 240
aagcaattgc ggcgagcgtc ttacaacaac caatttccca gttgcaacaa caatccttgg 300
cacatctaac aatacaaacc atcgcaacgc aacagcaaca acaattccta ccagcactga 360
gccacctagc catggtgaac cctgccgtct acttgcaaca gcagttgctt gcattaaacc 420

<210> 1741
 <211> 402
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-D5

 <400> 1741

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acggggccac ataccacata gattgaagtt tacactatca aacatcgatc accgagtctg   60
ggccaaaata tatcccatc tgatcctcct tgcctttttt ggaactcaac ataagcctac  120
attattccac aatgctcact tgctcctagt gccattattc cacagttcct accttcagtt  180
acttcaatgg gcttcgaaca ccagctgtg caagcctaca ggctacaaca agcgcttgct  240
gcgagcgtct tacaacaacc aattgcccaa ttacaacaac aatccttggc acatctaacc  300
atacaaacca tcgcaacgca acatcaacaa caatttctac cagcactgag ccaactagct  360
gtggtgaacc ctgtcgccta cttgcaacag cagttgcttg ca                       402
  
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<210> 1742
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-D6

 <400> 1742

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tgggatcggc agtgggtggt ggtgaacgcc aaagggcgag catacaccca gaggggtggag  120
cccaagcttg ctctggcca ggtggagttg ccgacggagg ccttcgctga gaactggcag  180
cccacgcccg actaccacct ggttatcaca gcacccggaa tggacacact gaagatacct  240
ataataacgg aacacaccac aatcgatgat gtctctgtct gggagtgggc tggctctgcg  300
tatgatgaac gggctgaagc gtctgaatgg ttcttcactt actttgggaa gccaaagtcta  360
ctagtgcgct ctaaagaagc atcggaaaact aggccaaccg atccagatta tgccaagggt  420
tatcagatca tggtt                                           434
  
```

<210> 1743

<211> 408
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-D7

 <400> 1743

 gaccaacaag caacatagaa cgtggaatac agtcgcaaaa atagagcaac gatggcggcc 60
 aagatatattt ccataccttat gctccttget ctttctgcat gtgttgctaa cgcgaccatt 120
 tttcctcaat actcacaagc tcctatagct gcccttctta ccccatatac ttccatcaat 180
 gaccgcttta gtatgtgaaa acccagccct tcaaccctac aggatccagc actgcaatcg 240
 caacaagcaa cttaccttta tcacacctgt tctttcaaca atcgccagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcaaggcag aacagttgca gcaactcgtg ctaccagtga 360
 tcagccaagt agctctggca gacctttccc cctactgtca gcaacaac 408

<210> 1744
 <211> 430
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-023-Q1-K1-D8

 <400> 1744

 attttgagca ttcagaaaca caccatgcga agcacattag caacaaccta gcaacgatgg 60
 ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgctccaa gttccattat tacacagtgc ctcccaccag 180
 ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
 cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
 caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
 ccattggtgaa ccctgcgcgc tacttgcaac agcagttgct tgcatacaac ccacttgctc 420
 tggcaaacgt 430

<210> 1745
 <211> 320
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-D9

<400> 1745

cagctagcaa catacaaagc tcaatattgt accaacaatg gcagccaaaa gattagggct 60
ccttatgctc cttggtcttt ctgcaagtgc tgctaccgcg accattttcc cacaatgctc 120
acaagctact atagcttacc ttcttcccc gtacctctca ccagcggtgt cttcggtatg 180
tgaaaacca attcttcaac cctataggat ccaacacgca atcccagctg gcatattacc 240
tttatcacac ttgttctcc aacaatcatc agccctatta cagcagttac ctttggtgca 300
tttattgcca cacaacatca 320

<210> 1746

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-E1

<400> 1746

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ctagctgtgc aagcctacag gctacaacaa gcgcttgagg cgagcgtctt acaacaacca 120
attaaccaat tgcaacaaca atccttggca catctaacca taaaaccat cgcaacacaa 180
cagcaacaac agttcctacc agcactgagc caactagatg tggatgaacc tgctgcctac 240
ttgcaacagc aggtgcttgc atccaaccca cttgctctgg caaacgtagc tgcataccaa 300
caacaacaac aattgcaaca gtttctgcca gcgctcagtc aactagccat ggtgaaccct 360
gccgcctacc tacaacagca acaactgctt tcatctagcc ctctcgttgt gggtaatgca 420
cctacat 427

<210> 1747

<211> 281

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-E10

<400> 1747

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tactagcgct tggcacgcag gtgacggctg cagcgactgc gttcaggctc gggctctcaa 120
 tgacggcatc agcggcttcc ccttccgact cttggcagtc ctatcgcgca ctgcctcgg 180
 gtcctctgca caccgtgcag tgaccgtgcg tgatggactg gataaagtct tgcagcgatc 240
 ttaccgcaag tgatgaggaa cagcatgcat tgcttgataa t 281

<210> 1748

<211> 422

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-023-Q1-K1-E11

<400> 1748

cccacgcgtc cgagaccatt agctttatct actccagagc gcagaagaac ccgatcgaca 60
 ccatgagggt gttgctcgtt gccctcgctc tcttggtctt cgctgcgagc gccacctcca 120
 cgcatacaag cggcggctgc ggctgccagc caccgcgcgc ggttcattcta ccgccgccgg 180
 tgcatctgcc acctccggtt cacctgccac ctccggtgca tctcccaccg ccggtccacc 240
 tgccgccgcc ggtccacctg ccaccgccgg tccatgtgcc gccgccggtt catctgccgn 300
 cgccaccatg ccactaccct actcaaccgn cccggcctca gcctcatccn cagccacacc 360
 catgcccgtg ccaacagccg catccaagcc cgtgccagct gcaggggaacc tgcggcggtg 420
 gc 422

<210> 1749

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-E12

<400> 1749

agccttccgt aaccattaca aaacacacca cgctacgcac attagccaca ctctcagcgc 60
 tgtgggtctcc gatataatac ctcttgtgct tctttgtgct ctttgtgagc agcagcacat 120
 gcgctcatta ttccacaaca ctgactagtt cctagtagca ttattacaca gcagctccta 180
 ccacctactt caatgggtgtt cgaacaccca gctgttcaag cctatatgct acatcaagca 240

attactgccca gcgacctaca tcaaccaatt taccagctac aacaacaatc attggcacat 300
ctcactatac aaaccatcgc atcgcaacag aaacgac 337

<210> 1750

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-023-Q1-K1-E2

<400> 1750

agaccaacaa gcaacataga aagtggaaatc cagtagcaac aacagagcaa caatggcgac 60
cgagatattt tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat 120
tttccctcaa tgctcacaag ctccctatagc ttcccttctt ccccatacc ttccatcaat 180
gatagcttca gtatgtgaaa acccagctct tcagccctat aggcctcaac aagcaatcgc 240
agcaagcaac atacctttat cacccttggt gtttcaacaa tcgccagccc tatctttggt 300
gcagtcattg gtacaaacca tcagggcaca gcagctgcag caactcgtgc tacctgtgat 360
caaccaagta gctctggcaa acctttctcc ctactctcag caacaacaat ntcttcatt 420
caaccaactg tctacactga 440

<210> 1751

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-E4

<400> 1751

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ggccattcat ggcctgaagg gggccccgtc gtcggccgct gaggacacgc tcacaatgcc 120
taccagcgcg cgcgctgggc ccacgcacca gcacagggcg cgcctagggg gcagggtcac 180
gtagctcgct catgtgcacc agcgctgca tgaacgtcgt cttagtcggc gccgcgattg 240
agccatgtac caagaccgga ggcctaagcg acgttctcag tggcctgact gcggtcattg 300
gcctcaactg gctccgtgtc atggcagcct ctaccaccta cgaccagtac aaggactcct 360
gggacacca 369

<210> 1752
 <211> 421
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-E6

 <400> 1752

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ggcaatcgca gctggcatct tacctttatc acccttggtc ctacaacagt gatcagcgcc 60
tattacagca gttacctttg gtgcatttat tggcacaaaa catcagggca caacaactac 120
aacaacttgt gctagcaaac cttgctgcct actctcagca acagcagttt cttccattca 180
accaactagc tgcattgaac tctgcttctt atttgcaaca acaacaacta ccattcagcc 240
agctacctgt tgcctacccc caacaatttc ttccattcaa ccaactggca gcattgaact 300
ctcctgctta ttacagcag caacaactac taccattcag ccagctagct ggtgtgagcc 360
ctgctacctt cttgacacaa ccacagttgt tgccgttcta ccagcacgct ggcgctaacg 420
c 421
  
```

<210> 1753
 <211> 385
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-E7

 <400> 1753

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cccgatatttg acggccgtgg cctgacgcc agcctcgtgg ctgcgtaca gggagtggct 60
accagatgg gcgacgtgcg ccagttgtac accgtcgtgt tccaggagag gccgctcaag 120
ggctccacgc tcgtcaccca aggcgcgatg acagaagggt cagacgagtg ggcgatctac 180
tgtggaactg gagtgttcgc gatggcgaga ggcgtcataa ggagaacgtt tcttgccgac 240
acgagcggcg ggaacttcga cgagcttgcc gtggaggttc tctgcccggg gttccagccg 300
ggggtgtttg gctcatcgtc gtcacagcca gctgcaaagg acatcagcta caccgtcgtc 360
gtcaccaagg tcggtatgtg ggggtg 385
  
```

<210> 1754
 <211> 432

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-E8
 <400> 1754

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 ggcgagggcc tgaggggggc cggggcgctc gcgggcgggc acacgctcag catgaggacc 120
 agcgcgcgcg cggcgcccgag gcaccagcag caggcgcgcc gcgggggcag gttcccgtcg 180
 ctctctgtgt gcgccagcgc cggcatgaac gtcgtcttcg tcggcgccga gatggcgccg 240
 tggagcaaga ccggcggcct cggcgacgtc ctcggcgggc tgccgccggc catggcccgcg 300
 aacgggcacc gtgtcatggt cgtctctccc cgctacgacc agtacaagga cgcctgggac 360
 accagcgctg tgtccgagat caagatggga gacgggtacg agacggtcag gttctttcac 420
 tgctacaagc gc 432

<210> 1755
 <211> 395
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-D3
 <400> 1755

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 ctaccaagat attatccctc tttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctccctccag 180
 ttacttcaat gggcttcgaa caccagctg tgcaagccta caggctacaa caagcgcttg 240
 cggcgagcgt cttacaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
 ccatacaaac catcgcaacg caacagcaac aacaatttct accagcactg agccaactag 360
 ctgtggtgaa ccctgtcgcc tacttgcaac agcag 395

<210> 1756
 <211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-C9

<400> 1756

cttgaaaccg acgacgaggc catatgctgg ggaattgcat attgtgtcaa gggcgggtgca 60
gaaaaagagc taaaagcaat gcagtacttg gagagaagag agtgtgagta cgaccagaag 120
atatccattg atttctacaa ggaaggagat cccttgaaac cagctgtgac aggcgtctta 180
gtgttcgttt cactccaga tccaattggc aacaagtact atcttggccc tgctcctttg 240
caggatatgg caaggcaaat tgctacagcc aatggcccta ctggctataa tagggattac 300
ctgttctcaa tggagaaggc attagccagc attagccacg aagatgattc gatcatagag 360
cttgcaaacg aggtgaggaa ggtgctcaac agaacatagg agaccaagat cactgggtgcc 420
aatg 424

<210> 1757

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-D10

<400> 1757

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ccgtccgtcc gtccggggaa ggagcaggag ggaggcggag atgatcgagg tgggtgtcaa 120
cgaccgcctg gggaagaagg tgcgggtcaa gtgcaacgag gacgacacca tcggcgacct 180
caagaagctg gtggcggcgc agacggggac gcgccccgag aagatccgca tccagaagtg 240
gtacaacatc tacaaggacc acatcaccct caaggactac gaggtccacg acggcatggg 300
cctcgagctc tactacaact gagccgncg ccctctctcc ctctcgtcag gttgggtctga 360
attctgaagt catgggtgca attcgcttcg cggatgatctc ttaagctcat cacata 416

<210> 1758

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-D11

<400> 1758

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ccgccgggttc atctgccgcc gccaccatgc cactacccta ctcaaccgcc ccggcctcag 120
cctcatcccc agccacaccc atgcccgtgc caacagccgc atccaagccc gtgccagctg 180
caggggaacct gcggcggttg cagcaccocg atcctggggc agtgcgtcga gtttctgagg 240
catcagtgcg gcccgacggc gacgccctac tgctcgctc agtgccagtc gttgcggcag 300
cagtgttgcc agcagctcag gcagggtggag ccgcagcacc ggtaccaggc gatcttcggc 360

<210> 1759

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-D12

<400> 1759

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cagaaagacg acggcgctcg ccagcagggc caccggcgcg gacgtggtga ggcagttcta 120
cgacgggggtg aaccggcggg acctggcggc ggtggagccg ctcatcgcg agggctgctg 180
gtacgaggac ctggtgttcc cgcgcccctt cgttggggcg gagcgtgtgg tcggcttctt 240
cggcgagttc atggggacca tcagccccga cctgcagttc gtcacgacg acatctccgc 300
cgaggactcc gccgccgtcg gggtcacctg gcacctggag tggaggggga ggccgtttcc 360
cttcagcagg ggatgcagct tctaccgctt gctcggctcg ggctcggact cggacgc 417

<210> 1760

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-D2

<400> 1760

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ttgcttctct atgctccttg gtctttctgc aagtgtgct accgcaacca ttttccaca 120
atgctcacia gctcctatag ctctcttct tccccatac ctctcaccag cgggtgtctt 180
agtatgtgaa aacccaattc ttcaacccta caggatccaa caggcaatcg cagcaggcat 240

cttaccttta tcacccttgt tacttcaaca accgtcagcc ctattacagc agttaccttt 300
 ggtgcatttg ctggcacaga acatcaaggc acaacaacta caacaact 348

<210> 1761
 <211> 109
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-041-Q1-K1-D3
 <400> 1761

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 ttacccttaa aagggcggca tgcccacctt gggaccgcac aaacgcccg 109

<210> 1762
 <211> 352
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-041-Q1-K1-D4
 <400> 1762

cccgcctcgac cacgcgtccg ggcaatttga agataaattt gacacacttg cacatatagg 60
 aagggatatgg gttcaaatat ctttgatata tattaatgtc tttggagtgc agatgacaat 120
 agtttcaccc ctccctattc ctttacggtg atgtggtaag ttgtttatgg cttaatgctt 180
 gatataattt atttctgaaa ttttgatatt gttttattaa tgcggtagat atcgctggtc 240
 attggtgaga atgaagttgt tattatgctt gtgatataca agtatgccta tngttgtttc 300
 accatgtttt tcatgggtga agtttattac aataatattg gtatatatgc tt 352

<210> 1763
 <211> 338
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-041-Q1-K1-D5
 <400> 1763

gcaagcaaca tagaaagtag aatccattag caacaataga gcaacaatgg cgaccaagat 60

attttccctc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga caattttccc 120
 tcaatgctca caagctccta tagcttccct tcttccccca taccttccat caattatagc 180
 ttcagtatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa tcgcagcaag 240
 caacatacct ttatcgccct tgttgtttca acaatcacca gccctatctt tgggtgcagtc 300
 attggtacaa accatcaggg cacaacagct nngcagca 338

<210> 1764

<211> 329

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-D6

<400> 1764

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 cgatccacgc cggccggcga tggagctcat caagtccagg gcgaccgtgt gcgcgctcct 120
 cctggcgctg ctctgctct cactacga cggcgggacg acgacgacga tgggtggcgga 180
 ggcccgggtg tgcattggga agagccagca ccaactcggtc ccctgcatct ccgaccgcct 240
 ctgcagcaac gactgctga aggaggacgg cgggtggacc gccggctact gccacctccg 300
 ctactgcagg tgccagaagg cgtgctaag 329

<210> 1765

<211> 338

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-D7

<400> 1765

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 tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa cccaattctt 120
 caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc acccttggtc 180
 ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt ggcacaaaac 240
 atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta ctctcagcaa 300
 cagcagtttc ttccattcaa ccannactag gttcattg 338

<210> 1766
 <211> 329
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-041-Q1-K1-D8

 <400> 1766

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 accattgaat tcaaaccctaa cacagctgat gatccccata tgagaaagcc agatatcacc 120
 aaggctaagc aactgctaca ttgggagcca aaggctcttc tcaaagaagg ctttccgcta 180
 atggttcaag atttccgtca aaggatctcg gatgagtaat caaagcaatt cttttttccc 240
 cgaatgtgcc atgcacgtgt ttgtaatcag agcaatcgta tgatactggg gaccgggttg 300
 attctgaacg atgctgcaac tacagtcag 329

<210> 1767
 <211> 423
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-041-Q1-K1-D9

 <400> 1767

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 tgctcctta tgctccttgg tctttctgca agtgtctgta cggcgaccat tttcccacaa 120
 tgctcacaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg 180
 gtatgtgaaa acccaattct tcaaccctat aggatccaac aggcaatcg agctggcatc 240
 ttacctttat cacccttggt cctccaacaa tcatcagccc tattacagca gttacctttg 300
 gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
 cttgctgcct actctcagca acaacagttt cttccattca accaactagc tgcattgaac 420
 tct 423

<210> 1768
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E10

<400> 1768

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gctccttggt ctttctgcaa gtgctgctac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcctttcttc ccccatacct ctaccagcg gtgtcttcag tatgtgaaaa 180
ccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttaccttgg tgcatttggt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactggct gcattgaact ctgctgctta 420
tttgcaac 428

<210> 1769

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E11

<400> 1769

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aatccttggc acatctaacc atacaaacca tcgcaacaca acagcaacaa cagttcctac 180
cagcactgag ccaactagat gtggtgaacc ctgtgccta cttgcaacag caggtgcttg 240
catccaaccc acttgctctg gcaaacgtag ctgcatacca acaacaacaa caattgcaac 300
agtttctgcc agcgctcagt caactagcca tgggtgaaccc tgccgcctac ctacaacagc 360
aacaactgct ttcactagc cctctcgttg agggtaatgc acctacatac ctgcaacaac 420
aa 422

<210> 1770

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-E12

<400> 1770

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cagcaaatac tactaccatt tagccagcta gctgcagcaa accgtgcttc cttcttgaca 120
cagcaacagt tgctgccttt ctaccagcag tttgcggcta accccgcaac cctcttacia 180
ctacaacaat tgttgccctt tgtccaactt gctttgacag accgagcggc ctcctaccaa 240
caacacatca ttggtggtgc cctcttttag attgcttatt agttgtaatt caataataaa 300
gttttttgga tgatgtatgt ggccaaccag aaataagaag ttacatttcc agattttaat 360
gtg 363

<210> 1771

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C8

<400> 1771

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ttatgctcct tggctcttct gcaagtgtcg ctacggcgac cattttcccg caatgctcgc 120
aagctcctat agcttccctt cttccccgt accctctacc agcgggtgtct tcgggtatgtg 180
aaaaccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc atcttacctt 240
tataccctt gttcctccaa caatcatcag ccctattaca acagttacct ttggtgcatt 300
tattggcaca aaacatcagg gcacaacaac taccaacaaa ctttt 345

<210> 1772

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B11

<400> 1772

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ctccttggtc tttctgcaag tgctgtacg gcgaccattt tcccacaatg ctcacaagct 120
cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt atgtgaaaac 180

ccaattcttc aaccctatag gatccaacag gcaatcgag ctggcatctt acctttatca 240
cccttggtcc tccaacaatc atcagcccta ttacagcagt tacctttggt gcatttattg 300
gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaacct tgctgcctac 360
tctcagcaac aacagtttct tccattcaac caactagctg cattgaactc tgcttcttat 420
ttgcaacaac aa 432

<210> 1773

<211> 87

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B12

<400> 1773

caccaatgat ggggtatagt tcaataataa agttctttgt ctgatgtttg tggcttccca 60

gaaataagaa agtacatttc tagattc 87

<210> 1774

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B3

<400> 1774

gcaccttaga agggggaatc cataaccacc attgaaccac cattgccgac caaaatagtg 60

gccttcttaa tgctcctggc tctttctaca tgggtggcta acgcgacaat tttccttcaa 120

tgctaacaag ctcttatagc ttcccttctt cccaataacc ttccatcaat tatagcttca 180

atatgtgaaa acccagctct tcaaccatat aggtttcaac aagcaatcgc agcaagcaac 240

atacctttat cgcccttgct gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300

gtacaaaacca tcagggcaca acagctgcag caaacttc 338

<210> 1775

<211> 303

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B4

<400> 1775

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tgcggtactc aacaacacac tgcttcatct acccgtcgtg ggcaatgcac ctacatacct 120
gacaacaatg tgcaacagat tgaccagctt gactactagc tgggcaaacc ctgtgctact 180
tgcacagtgc ttcattaaca atgacttgcg aactctgtgg tcctacaaca cgacaacagt 240
acttaatcat tggtagggt aaccatgtcg ccgacttcta cagcagcaac aattgctgcc 300
ata 303

<210> 1776

<211> 326

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B5

<400> 1776

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gatttttggc atccttggcc tccttgcctt ttcagcaagc gttgctaccg cgactattat 120
tcacaatgc tcacaacaat acctctctcc ggtgacagcc gcgagatttg aatacccaac 180
tatacaatcc tacaggctac aagaggccat cgcagcaagc atcttacggc cgtagcatt 240
gaccgtccaa caaccatag cctatttgca acaaccatcc ttaatgaatc tataatctcca 300
aagaatcgca gcacaacaac tacaac 326

<210> 1777

<211> 331

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B6

<400> 1777

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aattatggcc atcgggtgcc tccttgcctt ttcacaaagc accactaccc caactatcat 120
tcacattgc atacatcact tcctttctcc gttcacatca ccatagattg gaatacccaa 180
ctatacacc atacatacta cactacacca tcccacatgg catcttacgt tctatattac 240

cgacctcaca ataaccatat gcccaatcac aacacctatt ctatctgaat ccataggtgc 300
 atacattctc acaacacatc ctacaacaac a 331

<210> 1778

<211> 329

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B7

<400> 1778

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 acaagctcct atagcttccc ttcttccccc atacctctca ccagcgggtgt cttcaatgtg 180
 tgaaaaccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcattcttacc 240
 attatcacc cttgttctac aacaaccgtc agccctatta cagcagttac ctttggtcca 300
 ttaggtggca caaaacatca gggcacaac 329

<210> 1779

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B8

<400> 1779

caggcaatcg cagctggcat cttaccttta tcacccttgt tcctccaaca atcatcagcc 60
 ctattacaac agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta 120
 caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttacattc 180
 aaccaactag gttcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 240
 cagctacctg ctgcctaccc ccagcaattt cttccattca accaactagc agcattgaac 300
 tctcctgctt atttacagca gcaacaacta tctacca 337

<210> 1780

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-041-Q1-K1-B9

<400> 1780

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cggccaagat attttccatc cttatgctcc ttgctctttc tgcattgtgtt gctaacgcga 120
ccattttttcc tcaataactca caagctccta tagctgcctt tcttccccca taccttccat 180
caatgaccgc tttagtatgt gaaaaccag cccttcaacc ctacaggatc cagcaagcaa 240
tcgcaacaag caacttacct ttatcacacc tgttctttca acaatcgcca gccctatctt 300
tggtgcagtc attggtacaa accatcaggg cagaacagtt gcagcaactc gtgctaccag 360
tgatcagtc agtagctctg gccaaccttt ccnctactc ttcagccaca caatttctt 419

<210> 1781

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C1

<400> 1781

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agatattagc cctccttgcg cttcttgccc ttttagtgag cgcaacaaat gcgttcatta 120
ttccacagtg ctcaacttgc cctagtgcc aatttccaca gttcctccca ccagttactt 180
caatgggctt cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga 240
gcgccttaca acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac 300
aaaccattgc aacgcaacaa caacaacaac aaccagtt 338

<210> 1782

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C10

<400> 1782

caaactgggtt tcagggtact gcagatgctg taaggcagta cttgtggttg tttgaggagc 60

ataatgtgat ggaatttcta attcttgctg gcgatcacct gtaccggatg gactatgaaa 120
 agttcattca ggcacacaga gaaacaaatg ctgatattac cgttgctgcc ctaccgatgg 180
 atgagaaacg tgcaactgca tttggcctca tgaaaattga tgaagaaggg aggatcattg 240
 agtttgctga gaaaccgaaa ggagagcagt tgaaagcaat gatgggtgac accaccatac 300
 ttggccttga tgacgtgagg gcaaaggaaa tgccttatat tgctagcatg ggtatctatg 360
 ttttcagcaa agatgtaatg ctt 383

<210> 1783

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C11

<400> 1783

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 ggcgaggggc tcataaccat caaccagatg accaaaggct ttgcccggtg caaggaaggc 120
 cttgatgatc tgatcctega catcccaaata gccaggaga agtttgagga gtatgtggag 180
 ctggcaacag agcgcggtg gctgctgccg accttcgctt ccgttccttg agcatccacc 240
 actggcgata ccttccttat gtgtacattt gtgcccata tgatcattagc tccgtaccaa 300
 agttttccta ttcctagttt acttatgtta ccgtatactg gaggattgta ggatggatgt 360
 ggtgtcgggt gttgagatag tgcctatttg gtctagtctg ggaggggtact tttgagagtt 420
 aaaagaa 427

<210> 1784

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C12

<400> 1784

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 ctgttggttc ctggagcctg gattcgagcg cgaggtgcgg cgtctccaca ggctcgtggg 120
 gaatgccggt gtagacgggt accatgtgct cgtcgggaca ggctccactc agctctttca 180

ggccgtgctg tacgcgctct cacctgcaag tgacggcaca cccatgaacg tcgtctcacc 240
ggcaccgtac tactcgctctt acccatctgt gaccaactat ctaaactctg cgctctaccg 300
ttgggctggg gatgccaata catttgatgg cgacacatgt attgagctcg tctgctcccc 360
aaacaaccct gatgggtggc tccggaagcc tgatcatcaa tccaagtcta gcaagcctgt 420
atatgactt 429

<210> 1785

<211> 343

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-C2

<400> 1785

accaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccatgatc 60
acccttgatc cttcaacaac cgtcaggcct attacagcag ctacctttgg tccattagga 120
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 180
ctctgagcaa catcagtttc ttccattcaa ccaactggct gcattgaact ctgctgctta 240
tttgcaacaa caattaccat tcagccagct agttgctgcc taccgccagc aatttcttac 300
attcaaccaa ctagcagcat tgaactctgn ctgcattatt tac 343

<210> 1786

<211> 314

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-C3

<400> 1786

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gtgccagcca ccgcccggcg ttcattctacc gccgccggtg catctgccac ctccgggttca 120
cctgccacct ccggtgcata tcccaccgcc ggtccacctg ccgcgcgcgg tccacctgcc 180
accgncggtc catgtgccga cgnccggttca tctagccgcg ccaccatgcc actacctac 240
tcaaccgacc cggcctcagc ctcatcccca ggcacacca tgcccgtgcc aacagccgca 300

ttcaagcccg tgcc

314

<210> 1787

<211> 328

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-041-Q1-K1-C4

<400> 1787

gagaccaaca agcaacatag aaagtgggaat ccagtagcaa caatagagca acaatggcga 60
ccaagatact ttccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
ttttccctca atgtcacaa gtcctatag ctcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcaacccta taggctccaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt ttcaacaatc gccagcccta tctatggtgc 300
agtcattggt acanaccatc aaggcaca 328

<210> 1788

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-C6

<400> 1788

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ctgcaacttc ttggacgatg acgttgacaa ggagcagttc cattgcgacg attgcggcat 120
ctgcagagta ggaggaaagg agaacttctt ccactgccaa aagtgtggat cctgctactc 180
gacgaccctt cgcgacaggc actgctgcat cgagaactcg atgaagaaca actgccccat 240
ctgctacgag tacctgttcg attcgctgag ggagacgtcg gtgctccgct gcggccacac 300
catgcacctg cagtgcttgc acgagatggt tgaagcaacg accaaaggggt ttt 353

<210> 1789

<211> 329

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-B10

<400> 1789

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ttttaatata tttattataa ttattttttt tttttttttt ttttttttatt ttatataatt 120
atTTTTTTTT ttttattata ttatttttatt ttttttttta tattttatta ttatcaatta 180
atTTTTtatt ttttatattt ttttaaatac aaaaataatt cataaattat taatcaaaaa 240
aaaaaataac aaaaaataat atcatatata tttttataaa ttaaaaaaca aaaaaatatt 300
tacacattta aacataccat aatataata 329

<210> 1790

<211> 176

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-H12

<400> 1790

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cggtcgacat ggctcgacag caatctgccg tagcggtcgc cgtgggtggcc gcgggtgctgc 120
tgctggcagc ggcggcgacg acctcggagg ccgccatcac ctgcgggcaa gtgagc 176

<210> 1791

<211> 289

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-H2

<400> 1791

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tgggaggtca caactgctga aggtggacag ggcctcaatg agctcttaag ctccagaaag 120
agtgtattaa acggaattgt aaatggaatt gacattaatg attggaaccc tgccacagac 180
aaatgtatcc cctgtcatta ttctgttgat gacctctctg gaaaggccaa atgtaaaggt 240
gcattgcaga aggagctggg ttacctata aggctgatg tntctctga 289

<210> 1792

<211> 410
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-040-Q1-K1-H5

 <400> 1792

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catttggttg cacaaaacat caaggcacia caactacaac aacttggtgt aggaaacctt 120
gctgcctact ctcagcaaca gcagtttctt ccattcaacc aactgggtgc attgaactct 180
gctgcttatt tgcaacaaca actaccattc agtcagctag ctgctgcta cccccagcaa 240
tttcttccat tcaaccaact ggcagcattg aactctgtgt cttatttaca acagcaacag 300
ctaccaccat tcagccagct agctgatgtg agccctgttg cttcttgac acaacaacag 360
ttgttgccgt tctacctgca cgctgncgcc tttaaaaaac ccggggggggc 410
  
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<210> 1793
 <211> 410
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-H6

 <400> 1793

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ttatctaact ccaaaaacca tgaagctggt gcttggtggt cttgctttca ttgctttagt 120
atcaagcggt tcttgtagac agacaggcgg ctgcagctgt ggtcatcaac aaagccatga 180
gcagcaacat cattcacatc aacatgatcc acatagacag caacatcgtc cagcagcaca 240
gcatcaccag ctgcagcaac actcatcagc aacgagttca catgcatcca ctaaaacatc 300
agcatcaact agaagttcat gttcaacaac aacaacaaca accgtagcac caactacgac 360
agcaacaaca acagcaccaa caacaacatc aatgtggaaa aaagggggggg 410
  
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<210> 1794
 <211> 322
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-H7

<400> 1794

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gcttaaacia actgcaatcc gatctgggtga tcatacattg gtccctagcca tacagtgtta 120
acaagctcat atacttttgc tactttctgat atacctatta ccactggcga atccaatgtg 180
ctaataatcca attcatcaac cgtacaagat ccaacaggca atcgaaacac gcatgttacc 240
attataaccc ttgttcctac aacaaccggg atccctacaa cagcagttaa ctctacaaca 300
tttgctgggt cataacatga tg 322

<210> 1795

<211> 217

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-H8

<400> 1795

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aagtatcggt ttggactgat gcatgagtgc tgcggagggg tttgttgttt gtttgtttgt 120
tcggtgaccg aatcgcgagc tggacgcctg tttaatccgt gcttatacat cgtctgagta 180
aacagcaata agagggacat ccgtaagctc tttccgt 217

<210> 1796

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-H9

<400> 1796

gctcaccttc cgtgcctctg atatgcgccg ggctgggtcca ggcagcaggg agatgactgt 60
gccgggaagg ccatccgacc agctgggcag gagagtcgtc actgacagcc ccgtgtacga 120
cgcccggtggc gccgacgcc gctcgtggc tcgcatacag ggagtcacgg gtccctggctg 180
gtaacgcaga cccttggttc accatggggg tcgaaaccga caggctaaag gcctcaacgc 240
tggtaatcaa cggattggta acggttgggt caaacgattg gccaaactac ggccaacccg 300

gggtgttcgc catggccacc gtggatcatga gaagaagaaa ccttgccgcc gttggcacca 360
acggaacctt tgacaagctg gccttgaaag tt 392

<210> 1797
<211> 330
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A1

<400> 1797

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gtgggtctttc tgcaagtgt gctacggcga ccattttccc gcaatgctcg caagctccta 120
tagcttccct tcttcccccg tacctctcac cagcgggtgtc ttcggtatgt gaaaacccaa 180
ttcttcaacc ctacaggatc caacaggcaa tcacagctgg catcttacct ttatcacct 240
tgatcctaca acaatcatca gccctattac atcagttacc tttgggtgcat ttattggcac 300
aaaacatcag ggcacaacaa ctacaacaac 330

<210> 1798
<211> 331
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A10

<400> 1798

cagacagctt tcacagttac cttatcacta tagcacagca tcaaccggga aagtcacatt 60
gagatcgtgg tcagcgagcc caccagatac cagagagagg atggcggaca tatcgttgct 120
gttggcggag cacttcgaga agacagcaag gcgaggcgcc cccggcgggg acagcggtag 180
cgacagcggg accgccggcg agactaggaa cttctgggcc gcggccacag tgtggagctc 240
ttgtgtggag tccgcctccg ccgccgcgta cggggtcaga ttcaccgtct cgggtgcacat 300
gtagcccaag accgggctcg cgctggccgc c 331

<210> 1799
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A11

<400> 1799

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ctccttggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg ctcacaagct 120
cctatagctt cctttcttcc cccatacctc tcaccagcgg tgtcttcagt atgtgaaaac 180
ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt acctttatca 240
cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggt gcatttggtg 300
gcacaaaaca tcaaggcaca acaactacaa caacttggtg taggaaacct tgctgcctac 360
tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc tgctgcttat 420
ttgcaacaac aact 434

<210> 1800

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A12

<400> 1800

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tattatccct ccttgcgctt cttgcccttt ttgtgagcgc aacaaatgcg ttcattattc 120
cacaatgctc acttgctcct agtgccatta taccacagtt cctccgacca gttacttcaa 180
tgggcttcga acacctacct gtgcaagcct acaagctaca acaagcgctt gcggcgagcg 240
tcttacaaca accaattaac caattgcaac aacaatcctt ggcacatcta accatacaaa 300
ccatcgcaac acaacagcca caacagttcc taccagcaact gagccaacta gatgtggtga 360
accctgtcgc ctacttgcaa cagcaggtgc ttgcatccaa cccacttgct ctggcatacg 420
tagctgca 428

<210> 1801

<211> 304

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A2

<400> 1801

cttctatcag taccatcaat catcattcat cttagtagta taggcaccaa atcaaagctg 60
caacatcaat tatctaactc caaaaaccaa gaagctgggtg cttgtgggtc ttgctttcat 120
tgcttttagta tcaagtgttt cttgtacaca gacaggcggc tgcagctgtg gtcaacaaca 180
aagccatgag cagcaacatc atccacaaca acatcatcca caaaaacaac aacatcaacc 240
accaccacaa catcaccagc agcagcaaca ccaacaacaa caagttcaca tgcaaccaca 300
aaaa 304

<210> 1802

<211> 298

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A4

<400> 1802

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caaggagccc aacaagggtg tcaaccctga tgaggctgtt gcctttgggtg ccgctgtgca 120
gggaagcatc ttgagcggcg aggggtgggtga cgagacaaaa gatatacctc tccttgatgt 180
ggctccccctc accctgggta tcgagaccgt cgggtggagtc atgaccaagt tgatcccgag 240
gaacactgtc atcccgacca agaagtccca ggtgggtcacc acctaccagg accagcag 298

<210> 1803

<211> 334

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A5

<400> 1803

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tccctccttg cgcttcttgc gctttttgcy agcgcaacaa atgcgttcat tattccacaa 120
tgctcacttg ctccaagttc cattattaca cagttcctcc caccagttac ttcaatgggc 180
ttcgaacacc cagctgtgca agcctatagg ctacaacaag caattgcggc gagcgtctta 240
caacaaccaa tttcccagtt gcaacaacaa tccttggcac atctaacaat acaaaccatc 300

gcaacgcaac agcaacaaca attoctaacc agca

334

<210> 1804

<211> 295

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A6

<400> 1804

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tccctccttg cgcgtcttgc gctttttgcg agcgcaacat atgcgttcat tattccacaa 120

tgctcacttg ctccaagttc cattattaca cagttcctac caccagctac ttcaatgggc 180

ttcgaacacc cagctgtgca agcctatagg ctacaacaag caattgcggc gagcgtctta 240

caacaaccaa tttcccagtt gcaacaacaa tccttggcac atctaacaat acaaa 295

<210> 1805

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-041-Q1-K1-A7

<400> 1805

accaagggga ggtagtcaag tatctcagcg tgaacctcga ttccgggtcca gaatgcgtga 60

tggtgaaggg tctcaaggta agtctgaggt gtctgocatt gtttataaag ctgggggagtg 120

catgcaggag cttctgaaat catggaaaga gtttgatgta actcaggatg ctacaattgc 180

tgaaagccta caacatggtc ctactcttga aatccgaata cctgcagaat ttgttacttc 240

cactaaccgt caggtaaaag gtgctcagct ctggggaaca gatatttata caaatgattc 300

agatcttgtg gctgtgctaa tgcatacttg gggttact 337

<210> 1806

<211> 375

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-H11

<400> 1806

cccacttctg actgaccact gtgccgcgcc gtggtcaccg gacggacaca cagaacgacg 60
atgggcgcggt cggcgctgca ccagaccacc agcttcctcg ggcaggccct ggtctcccgc 120
gccgnccggcg tcgatgccgg cggccgcata accatgcgcc gcaccgtcaa gagcgttccc 180
cagagcatat ggtacggccc tgatcgccca aagtattttg gcccgttttc cgagcaaacc 240
ccgtcgtact tgaccgggaa gttccccggc aattacgggt ggaaaaccgc ggccttttcg 300
gccaaaccga aaccattggg cccaaaccgg aacctgaagg taatcaattc ccggtggcca 360
atcttgcccc cctg 375

<210> 1807
<211> 330
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-041-Q1-K1-A8
<400> 1807

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aaaccttgca attttctcat agacgaaaat gattgtgctg tgctggggga ttttgggatt 120
ccatccctgc tgtttggcct ttcattacct aatccggacc ttatccagag gcttggaaact 180
ccaaattaca tggctcctga acaatggcaa ccaaaccatca gaggtccgat tagttatgaa 240
actgattcgt ggggttttgc gtgcagcgtc cttgagatgt tgactggcat tcagccatgg 300
cgtggaaagt cagcagatga gatatatcag 330

<210> 1808
<211> 119
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-041-Q1-K1-B1
<400> 1808

ctttgacaaa cccagcagca ttctaccaac aacccatcat tgggtggtgcc ctcttttaga 60
tttcttatga gttatagttc aataataaag ttttttgtct gatgtttgtg gcttcccag 119

<210> 1809
<211> 426

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-023-Q1-K1-C1
 <400> 1809

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 tgaagctcta atggcagagc ttgagaggat taagaaagaa agagccgagg agaagcttag 120
 aaaggagcgg caacaagcag aagaggaggc gaagatgaag gaggctgaac tgatgcgggg 180
 aaaccggttg attaatatca ataatgctgg ctctttcagt gttaagagaa ggtgggacga 240
 cgacgtggta ttcaagaatc aagcacgagg agagaccaag acaccgaaac ggttcatcaa 300
 cgacaccatc aagagtgatt tccaccgtaa atttcttcag aggtacatga agtgacgctt 360
 ncgtcggttc caattcagcc tggagcccct catcgntatc acgtttgtgt atgagcgaaa 420
 gatcat 426

<210> 1810
 <211> 381
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-C11
 <400> 1810

agaagaaccc gatcgacacc atgaggggtg cgctcggttg cctcgctctc ctggctgtcg 60
 ctgcgagcgc cacctccacg catacaagcg gcggctgcgg ctgccagcca ccgccgccgg 120
 ttcattctacc gccgccggtg catctgccac ctgcggttca cctgccacct ccggtgcac 180
 tcccaccgcc ggtccacctg ccgacgccgg tccacctgcc accgccggtc catgtgccgc 240
 cgccggttca tctgccgccg tcaccatgcc actaccctac tcaaccgacc cggcctcagc 300
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 caggaacctg cggcgttggc a 381

<210> 1811
 <211> 374
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-C2

<400> 1811

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gagcaacaag ggctaggaag atactttccc tccttatgct ccttgctctt tctgcatgtg 120
ttgctaacgc gacaattttc cctcaatgct cacaagctcc tatagcttcc cttcttcccc 180
cataccttcc atcaatgata gcttcagtat gtgaaaaccc agctcttcaa ccctataggc 240
tccaacaagc aatcgagca agcaacatac ctttatcacc cttgtttcaa caatcgccag 300
ccctatcttt tgtgcagtca ttggtaccaa ccatcaaagc acaacaactg catcaactcg 360
tgctacctgt gatc 374

<210> 1812

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-C3

<400> 1812

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ccaagatact ttccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
ttttccctca atgctcacia gctcctatag cttcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcaacccta taggctccaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt ttcaacaatc gccagcccta tctttgggtg 300
agtcattggg acaaaccatc aaggcacagc agctgcagca actcgtgcta cctgtgatca 360
accaagtagc tctggcaaac ctttctacct actatc 396

<210> 1813

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-C4

<400> 1813

caccaacgca aattgcacca agaaatccat cgagaggccg tcgacagggg aattaagggc 60

gtcgtcgtct agcagcagcc accgcgcct cctcctcgca gccgccgtcc tgctctccgt 120
gctcgcggct gccagcgcca gcgcggggac ctcctgcgtg ccgggggtgg ccatccccga 180
caaccgcctc ccgagctgcc gctgggtacgt gaccagccgg acctgcggca tcggggccgcg 240
cctccccgtg ccggagctga agaggagatg ctgccgggag ctggcggaca tccccggcta 300
ctgccgggtgc acggcgctga gcctcctcat ggacggcgcg atccccccg gcccggaacgc 360
gcagctgga 369

<210> 1814
<211> 410
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-C5

<400> 1814

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tgaacgagat cctcttcagg gcattaactc tcttggaat cactgcactg aagtttgc 120
gagcagtcac cacgatttta taggtttgtc gatgcagttg tgatatactc acctatgtct 180
atgtgggttca gaagtgtagt actgctttct gtaggaccaa gttccacctg cccaaacct 240
ggttatagct tctcagttct cattgatctc gtagaaaatg agccaagttg taaattgtac 300
aggatTTTTTg caggaaactc ggtgtatatt gtggatgatg gatttttaact ctgtgaacat 360
tggataatct gatgccaga gcttatttat aatttatcta cttaatatga 410

<210> 1815
<211> 354
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-023-Q1-K1-C6

<400> 1815

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ccgcgcgctt cccgcttttc cctgacgac ctgcacaact tcgccgtcc gccagcgag 120
cccccccca tcttcgtcgt tccccgaac cctagccac cgcccccgcg cctcctcgtc 180
gtattcatct cccccacctc cctcgcgtc ctgcctccc cgccgcgct ccacgcatcc 240

ctgctcctcc cggacctgcc cctactcccg cacgcgcca tgcgctgta cctccacccc 300
 tncggcgcg ctcctggcg gcgcacggc gccttaccgc gccaacggc gcgc 354

<210> 1816

<211> 413

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-023-Q1-K1-C7

<400> 1816

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 aatggcgacc aagatatctt cctccttat gctccttgct cttctacat gtgttgctaa 120
 cgcgacaatt ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct 180
 tccatcaatt atagcttcag tatgtgaaaa ccagctctt caaccatata agcttcaaca 240
 agcaatcgca gcaagcaaca tacctttatc gcccttggtg tttcaacaat caccagccct 300
 atctttggtg cagtcattgg tacaaccat cagggcaca cagctgcagc aactcgtgct 360
 acctgtgatc aaccaagtag ctctggcaaa cctttctccc tactctcagc aac 413

<210> 1817

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-C8

<400> 1817

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 ctaccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaagcgt 120
 tcattattcc acagtgtcga cttgtccta gtgccagtat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cggcgagcgc cttacaacaa ccaattgcc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgcatca ctgagccacc 360

<210> 1818

<211> 398
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-C9
 <400> 1818

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gcaacagcag ttacctttgg tgcattttgta ggcacaaaac atcacggcac aacaactaca 120
acaactcgtg ctagcaaacc ttgatgacta ctctaatacag caacagattc tgtcattcaa 180
ccaactagct gcattgaact ctgctgctta ttogcatcaa caacaactac taccattcag 240
ccagctagct gctgcctacc cgcggcaatt ccttacattc aactaactgg cagcattgaa 300
ctctcatgct tatgtacaac atacaacaac tactaccatt cagccagcta gctgctgcga 360
gcactgttgc cttcttgaca cagcaacatt tgatgtcg 398

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<210> 1819
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-023-Q1-K1-D1
 <400> 1819

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ctcacttgct ccgagtgcc a ttattccaca gttcctccct ccagttactt caatgggctt 180
cgaacaccca gctgtgcaag cctataggct acaacaagcg cttgcggcga gcgtcttaga 240
acaaccaatt gcccaattac aacaacaatc cttggcacat ctaaccatac aaaccatcgc 300
aacgcagcag caacaagcac tgagccacct agccgtgggtg aaccctatcg gctacttgca 360
acaacagctg cttgcattca acccacttgc tttgcaaacy tagctgcata ccaacaacaa 420
caacagtt 428

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<210> 1820
 <211> 405
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-D10

<400> 1820

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ccagcggtgt cttcggtatg tgaaaaccca attcttcaac cctataggat ccaacaggca 120
atcgagctg gcatcttacc ttatcaccc ttgttctcc aacaatcatc agccctatta 180
cagcagttac ctttggtgca ttattggca caaaacatca gggcacaaca actacaacaa 240
cttggtgctag caaaccttgc tgcctactct cagcaacaac agtttcttcc attcaaccaa 300
ctagctgcat tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta 360
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<210> 1821

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-D11

<400> 1821

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gcgcgcctc cagtacaagc ggcggtgtg gctgccagac accaccgttt catctaccgc 120
ctcgttcta tatgccgcct cgttctatc tgccgcgcga gcagcagccg cagccatggc 180
aataccccac tcaaccaccg cagctaagcc cgtgccagca gttcgggatcc tgcggcgctg 240
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cggcggcgac gccctacggc tcgccacagt gccaggcgct gcagcagcag tgctgccacc 360
agatcaggca ggtggagccg ctgcaccggt accaggcgac atacggtgtg gtctgcagt 420
cctt 424

<210> 1822

<211> 441

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-023-Q1-K1-D2

<400> 1822

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ccctccttgc gcttcttgcc ctttttgtga gcgcaacaaa tgcgttcatt attccacaat 120
gctcacttgc tcctagtgcc attattccac agttcctccc accagttact tcaatgggct 180
tagaacacct agctgtgcaa gccaacatgc aacaacaagc gcttgcggcg agcgtcttac 240
aacaaccaat tgcccaattg caacaacaat ccttgccaca tctaacaata caagccatca 300
caacgcaact gcaacaacag ttcctaccag cactgagcca cctagccatg gtgaaccctg 360
ccgnctactt gcaagagcag ctgcttgcac ccaaccact tgctctggcg aacgtagttg 420
caaaccagca gcaacaacag c 441

<210> 1823
<211> 427
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-023-Q1-K1-B9
<400> 1823

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tgtgttgcta acgcgaccat ttttcctcaa tactcacaag ctctatagc tgcccttctt 180
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caacaac 427

<210> 1824
<211> 440
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-023-Q1-K1-A6
<400> 1824

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cggaagaggc caccaaggca gtcgacagat gacatgccgg caactcctct ctgcaaggtc 360
ctcctaacaa gggacaccac atgggtgact tcattcctca agaagaactt gaaaagttta 420
tggcacggtg taatgatgct 440

<210> 1825

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A7

<400> 1825

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cattcaacca acttgctttg aaaaaccag cagcattcta ccaacaaccc atcattggtg 180
gtgccctctt ttagatttct tatgagttat agttcaataa taaagttttt tgtctgatgt 240
ttgtggcttc ccagaaataa gaaagtacat ttctaaaaa aaaaacaaat aaaaaaaga 300
aacctaata acaataaata taacaaaaca tataagaata aaaacattaa caatcaagaa 360
ct 362

<210> 1826

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A8

<400> 1826

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atctcaacag gatacttgta acaagcattg tactcaaata agtgatagcc caacaattca 180

accctacagg attccagagg ttatctcagg aggaattgga ggtacatcac actagggcat 240
acaacacccg acagctctga tccaccaact acgtttgatg cattcaacgg cataaaacat 300
ttagcgtaga accactacga tagcttgagc taggaaacct atctgcctac tctcaccaca 360
tcagccagtt acattctgcc tactggctgc attgaactct g 401

<210> 1827

<211> 282

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A9

<400> 1827

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gctgatacta ttgctaaaat gattcatttt agctataccc ttctatttca cccagcttgc 120
acgttcgcta ttaggaaaaa cacatttatg gactcaaaca aagagtgata cagaaagtca 180
ttttacttcc accttaagaa ccaatccacg aaaacagata tcaactgtga cgccacactc 240
aaaaacttgt tttgtgacag gcataacggt gcgatgcttg ag 282

<210> 1828

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B1

<400> 1828

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ccatttagcg agctagctgc aacaagtcgt gcttacttct tgacacagca acagttgctg 180
cctttctaca agcagattgc ggctaacccc gtaacctat tacaactaca acaagtgttg 240
ccctttgtgc aacttgcttt gacaaaccca gcagcctgct accaacaaca catcattggg 300
ggtgccctct tttagattga ttattagttg taattcaata ataaagtttt ttggatgatg 360
tatgtggcca accagaa 377

<210> 1829
 <211> 326
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B10

<400> 1829

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tggtactcga ctgggaagct cacatcctaa gggatgtttc aatatcggac ttccatcagg 120
aaagtcactt ttccagctgc aagctgaaag gatcttgtgc gttcaaaagc tggctgctca 180
atctagcgat agcccagta aactgtgcc gatccactgg tacatattga caagcccctt 240
tactgatgct gccatcggca aattatctga aaccgcaga tattttggct tagacgctga 300
ccaagtgaca ttattacaac aaggca 326
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<210> 1830
 <211> 421
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B11

<400> 1830

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agaattggcg gtaatcaagg gaggccaaga tatgtatgcg attcatttaa atctccaagc 180
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aagcagctac agggtagtaa gaaaattgct gcagagaacg acagttcaga caatctgcga 360
ggatgaatcag aagggttttac tactgaacaa gtagtaaaac cagaaggctc tcatgttgtc 420
g 421
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<210> 1831
 <211> 225
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B12

<400> 1831

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catgaagcag atgatcgggtg tcttcgggtt cctggctctc gctacgagcg atatatagac 120
gcatacaagt ggaagatgta gctgtcagct accacctccg gttcatctac cagcgtcgggt 180
gcatctgaca cctacggttc acctgccaac tccggtgcat gttcc 225

<210> 1832

<211> 378

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B3

<400> 1832

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caagaattct tttttttttt taattttttt ttaaggggaa gaagaagaag aagaaggaaa 120
agccgaagaa ccaccaccaa gcaacaaaac gccaaagcgaa accgggaccg aacccttgaa 180
gtcttttgcg aatccaaaag ccaacgaccg tgttgogaat cgtcttccaa gatatgaaca 240
accggacttt gggttttaac cgcagctaga agatagcctg gagtgagcat ttcattctgg 300
agatacaatg ggtggctgct gctgctgctg ctggtctgca agggcatctg attcagatag 360
agcaccggac cgacaaaa 378

<210> 1833

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B4

<400> 1833

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actgatccca ataggatgta ccctagctcc cgaccgtaca cccagtatgg gaattcaata 120
aaaactggcc ttccctacgg gagcaacggt tatgattcca ggatatatgg gcgatgggggt 180
cttggtatgg ataacaggta caggcctagg ggccgtaatg gatattatgg ttatggcaac 240
gagagtcacg atggaacaat cgagttaaac agaggctcta gatctggccg attcaagaac 300

cagaaattgt acggccatac tgtcactatt gctgtgaaag ggcagagcct tccttctggt 360
gaaagcaagg atgatagtgc cgtgcctgat agagcacagt tcaatagaga cgatttccct 420
gttcagtatg atgctgcaaa 440

<210> 1834

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B5

<400> 1834

cgccaccata ttaccccggc ccattcccac ccacagaccc tgtccgatac gcatcacctg 60
ctccccaca gcggcacctg ccatggccat cagtataccc agttcaatat ggatcgccgc 120
cgccccctcc gctgcattga tagaaaggat ctacagacga cggaacggaa ggatagttgg 180
ttctgctctt gccctccgg ccatggctac cacttgccag attcaccagt gtacgtggtc 240
attgtcatgc ttagcaaata ctgttggtg atggctgcat gcctcaagag cgcgtggcaa 300
tctccacaga attttgtgaa atcatggtct gtcggtgctg gtcgttggtg ctgaaagga 360
ttggattgaa ggtgacgggt ggtctgctgg gtctcttcgg 400

<210> 1835

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B6

<400> 1835

tggctagcat caatgtccgt ttcagtttgc gaaaaccag tctacaacg ctacggctcc 60
aacaagctgt cgcacaaagc aacgtacctt tatcaccctt gttatttcaa caatcgccag 120
ccctatcttt ggtgcagcca ttgttacaaa ccatcatggc acaacagctg caacaactcg 180
tgctaccagt gatcagccaa gtagctctgg caaaccttct tgctactct cagcaacaac 240
aattgcttcc attcaaccaa ctgtctacac tgaacctgc tgcctattta caacaacaac 300
aactactacc attcagccag ctactactg actactctca gcagcaacaa tttcttgcac 360
ttaaccaatt ggccgcactg aaccttatg cttatttcca gcagcaacaa ctactaccat 420

ttggccagct

430

<210> 1836

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B7

<400> 1836

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gctgccaagg gccatatttc aacagttctt ccaaccattt acttcaatgg gcttcgaaca 120
cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgtct tacaacaacc 180
aattgcccaa ttgcaacaac aatccttgcc acatctaaca atacaagcca tcacaacgca 240
tcagcaacaa cagttcctac cagcactgag ccacctagcc atgggtgaacc ctgccgtcta 300
cttgcaagag cagctgcttg cattcaaccc acttgctctg gcgaacgtag ttgcaaacca 360
gcaacaacaa cagctacaac agtttttgcc aacgc 395

<210> 1837

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-B8

<400> 1837

caacaagcaa catagaaagt ggaatctagt agcaacaata gagcaacaat ggcgaccaag 60
atactttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcaa ccctatagge tccaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgtttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcaaggc acaacatctg caacaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaaccttcc tccctactat cagcaacaac aatttcttcc attcaaccaa 420
ctatctacac tg 432

<210> 1838
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A4

<400> 1838

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gcacaatagt gtaccaacaa tggcagccaa aatattttgc ttccttatgc tccttgggtct 60
ttctgcaagt gctgctaccg caaccatttt cccacaatgc tcacaagctc ctatagcttc 120
ctttcttccc ccatacctct caccagcggt gtcttcagta tgtgaaaacc caattcttca 180
accctacagg atccaacagg caatcgcagc aggcattctta cttttatcac ccttgttcct 240
ccaacaaccg tcagccctat tacagcagtt acctttgggtg catttggttg cacaaaacat 300
caaggcacia caactacaac aacttggtgt aggaacacct gctgcctact ctgagcaaca 360
gcagttttct ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaaca 420
actaccattc agtcagcta 439
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<210> 1839
 <211> 349
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G8

<400> 1839

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gagaccaaca agcaacatag aaagtgtaat ccagtagcaa caatagagca acaatggcga 60
ccaagatact ttccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
ttttccctca atgctcacia gctcctatag ctcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcaacctta taggctccaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt ttcaacaate gccagcccta tccttgggtgc 300
agtcattggg acaaaccatc aaagcacagc agctgcagca actcgtgct 349
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<210> 1840
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G9

<400> 1840

attgagacca actagcaaca tagaaagctc aatagtgtac caacaatggc agccaaaata 60
ttttgcctcc ttatgtcctt tgggtctttct gcaagtgtg ctacggcgac cattttcccg 120
caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
atcttacctt tatcaccctt ggtcctgcaa caatcatcag ccctattaca tcagttacct 300
ttgggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agct 414

<210> 1841

<211> 367

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-H1

<400> 1841

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gagccgagtg atcttatggc gcanacaaac aaaagaatag tgccaaagtt cactgaaatc 120
ttccccgtgg aggacgcgaa ctacccttac agcgccttca tcgcgtcggg ccggaaagac 180
gtgatcaaac actgcaccga ccataaaggg atcttccagc ccgtgctgcc accggagaag 240
aagggtcccg agctatgggt ctacacagag ctcaaaaacta ggaccagctc catcacgctc 300
gccatacgca tggacaacct gtacctcggg ggctttaagg accccggccg ggtgttggtg 360
gaagtcc 367

<210> 1842

<211> 392

<212> DNA

<213> Zea mays

<223> unsure at all n locations .

<223> Clone ID: LIB3061-022-Q1-K1-H10

<400> 1842

ggtcttcaga ccattagctt tatctacttc agagcgcaga agaaccgat cgacaccatg 60

aggggtgttg cgtttgccct cgtctctcctg gctctcgtcg cgagcgccac ctncacgcat 120
 acaagcggcg gctgcggtcg ccagccaccg ccgcccgttc atctaccgcc gccggtgcat 180
 ctgccacctc cggttcacct gccaccttcg gtgcatcttc caccgccggg ccacctgccg 240
 ccgcccgttc acctgccacc ggcggtccat gtgcgctcgc cggttcatct gccgtcggca 300
 ccatgccact accctactca accgccccgg cctcagcctc atccccagcc acacccatgc 360
 ccgtgccaac agccgcattc aagcccgtgc ca 392

<210> 1843
 <211> 409
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H11

<400> 1843
 caacaagcaa catagaaagt ggaatccagt agcaacaaca gagcaacaat ggcgaccaag 60
 atattttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
 gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgagca 240
 agcaacatac ctttaatcac ccttttgttt caacaatcgc cagccctatc tttgggtgcag 300
 tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttc 409

<210> 1844
 <211> 437
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H12

<400> 1844
 gaccaactag caacatagaa agcacaatag tgtaccaaca atggcagcca aaatattttg 60
 cctccttatg ctccttggtc tttctgcaag tgctgctacg ggcaccattt tcccgaatg 120
 ctogcaagct cctatagctt cccttcttcc ccgctacctc tcaccagcgg tgtcttcggg 180
 atgtgaaaac ccaattcttc aacctacag gatccaacag gcaatcacag ctggcatctt 240

acctttatca cccttgttcc tccaacaatc atcagcccta ttacatcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaac 437

<210> 1845

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H3

<400> 1845

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tgaggagggc accatcagca tcagttggga atctgcctcc tatggggaga cctatctctt 120
cttcgcagca ggcatcagat cgcagagggg ggtcttcagt ttccaacaca aggaaagatg 180
agtacaactg gagatacgat accaccgatg atatatctga agaggtgctg cgggcatcga 240
ctgccctaga aagtgttcag ctagaccgca aatctcggaa tctgccgaca tcttgagggc 300
attcagggga tggcgccgag taacaagaag gctttggagc tggttgcttg acttgaccga 360
ccctgtatca tgtaatttgt atgccactca tttg 394

<210> 1846

<211> 334

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H4

<400> 1846

ggtcgctcga ccacgcgtcc ggcaacatag aaagcacaat agtgtaccaa caatggcagc 60
caaaatattt tgccctcctta tgctccttgg tctttctgca agtgcctgcta cggcgaccat 120
tttcccgcaa tgctcgcaag ctcttatagc ttcccttctt ccccggtacc tctcaccagc 180
ggtgtcttcg gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc 240
agctggcatc ttacctttat cacccttgtt cctccaacaa tcatcagccc tattacaaca 300
gttacctttg gtgcatttat tggcacaaaa catc 334

<210> 1847
 <211> 266
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H5

<400> 1847

gggaccctgt tttctctttc ttgttttacc gacatgctgg tgaaggagaa ggtggggaaa 60
 ttgtgtctgg tggaatggat tctagtcact acaaggggtga tcacacctat gtcccagtca 120
 ctacagaagg atactggcag tttaatatgg gtgatgtcct gcttgatgga aagaccactg 180
 agttttgtgc tcgaggttgt gcagcaatag cagattctgg aacttccttg cttgatggcc 240
 ctacagccat tattactgaa atcaac 266

<210> 1848
 <211> 318
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H6

<400> 1848

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatattt gcttccttat 60
 gctccttggt ctttctgcaa gtgctgtac ggcgaccatt ttcccgaat gctcgcaagc 120
 tectatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggc 318

<210> 1849
 <211> 75
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H7

<400> 1849

ttaaaatata gatctctaatt cttttattac tgagaagttg cacatatcag tatgagaact 60

ttattattac agtat

75

<210> 1850

<211> 334

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-H8

<400> 1850

ggtcgctcga ccacgcgtcc ggcaacatag aaagcacaat agtgtaccaa caatggcagc 60
caaaatattt tgctcctta tgctccttg tctttctgca agtgctgcta cggcgaccat 120
tttcccgcaa tgctcgcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc 180
ggtgtcttcg gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc 240
agctggcatc ttacctttat cacccttggt cctccaacaa tcatcagccc tattacaaca 300
gttacctttg gtgcatttat tggcacaaaa catc 334

<210> 1851

<211> 448

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-H9

<400> 1851

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agatattagc cctccttgcg cttcttgccc tttttgtgag cgcaacaaat gcgttcatta 120
ttccacaatg ctcaacttgc cctagtgcc ttattccaca gttcctccca ccagttactt 180
caatgggctt cgaacaccta gctgtgcaag ccaacatgca acaacaagcg cttgcggcga 240
gcgtcttaca acaaccaatt gcccaattgc aacaacaatc cttgccacat ctaacaatac 300
aagccatcac aagcaacag caacaacagt tcctaccagc actgagccac ctagccatgg 360
tgaaccctgc cgnctacttg caagagcaac tgcttgcatc caaccactt gctctggcga 420
acgtagtgtc aaaccagcaa caacaaca 448

<210> 1852

<211> 405
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-A11

 <400> 1852

 acgggggtctt cagaccatta gctttatcta ctccagagcg cacaagaacc cgagcgacag 60
 catgagggtg ttgctcgttg ccctogetct actggctctc gctgatagcg ccaccttcac 120
 gcatacaagc tgcggctgca gatgccagcc accgtcgacg gttcatctac cgccagaacg 180
 gagcatctgc cacctacgag gaacctgcca cctacggcac atctcacatc gccggtccaa 240
 ctgacgacgt cgggtccacct gacaccgccc gtccatgtgc tgccgacggt tcattctgccg 300
 acgccacgat gccactaccc tactcaaccg ccccggcctc agcctcatac gcagccacac 360
 ctatgcccgt gccaacagcc gcattcaagc ccgtgccagc tgcac 405

<210> 1853
 <211> 212
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-A12

 <400> 1853

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 ttctaccaac taccatcat tggtggtgcc ctcttttaga tatgttatga gttatcgttc 120
 aatactatag tgtctcggcg tgatagcgac agtctgtcgc agttcatggc gcgttagtgt 180
 ctgatgggtc tccggtctac aggatccatg ct 212

<210> 1854
 <211> 338
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-023-Q1-K1-A2

 <400> 1854

 aagacagtga atgctacact gacaacatgc tgcagtctga acttggtatg ttaggggatc 60
 attgcacgtg tgacctccaa ttcagatgct gcacaagtcg cggagaccct catttagaat 120

atctgtagga ccaacgttga tggagtgcc ggttgattga atggtgacct caacatctag 180
gttgtggaaa caacatttga gacttgatca gtatgtaagg ctaattcaca gctagtaagc 240
catgcttgac ttgatgcgat ctgagctgga aagtactatc attgcgatcg gctgatggca 300
cgaagagcat ctcaagatga cttgtaatga gctcttta 338

<210> 1855

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-023-Q1-K1-A3

<400> 1855

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaggta 60
ttttgcctcc ttatgtcctt tgggtctttct gcaagtgtcg ctacggcgac cattttcccg 120
caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca acagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aagttcattg 420
aac 423

<210> 1856

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G7

<400> 1856

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cttogaacat ccagccgtgc aagcctacag gctacaacta gcgcttgagg cgagcgcctt 120
acaacaacca attgcccaat tgcaacaaca atccttggca catctaacc tacaaccat 180
tgcaacgcaa caacaacaac aacaacagtt tctgccatca ctgagccacc tagccgtggg 240
gaaccctgtc acctacttgc aacagcagct gcttgcatcc aaccacttg ctctggccaa 300

ccgtactgca taccagcaac aacaacagct gcaacagttt atgccagtgc tcagtcaact 360
agccatggtg aaccctgccg tctacctaca actactttca tctagcccg tgcgggtggg 420
caat 424

<210> 1857

<211> 171

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-F12

<400> 1857

gctaaggcga ataaggaag gatgagtcac ttgcaccatg tttgaccacc aattgttagg 60
tggtgcatat atttgtact aattgtgaga ctttgtgcta tggatctcaa ctgtatacct 120
tgctggtgca tggctttggg tttacatggt tgaaaatgag attggtgtac t 171

<210> 1858

<211> 291

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-F2

<400> 1858

gcgcgcggcg ccagcctccg gcgaccggca cccgcctttc ttttatacct ccgccgcggc 60
gaccacgcc aaccttcgac cccctaacc ctaccaaagc ccgaactctc gagatcacag 120
gacgcggatc caaaccagag gccctgcct gccctctact cccccaccac accacagcct 180
accgccatgt cggcgaccgc tacggacgag gccgcgggtg aggcgcgcct ncaggagctg 240
cggggggaggc tcgggaagaa gcagcacttc gaggaggccg taaacgagct c 291

<210> 1859

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-F3

<400> 1859

ggcaatcaca gctggcatct tacctttatc acccttggtc ctccaacaat catcagccgt 60

attacatcag ttaccttttg tgcatttatt ggcacaaaac atcagggcac aacaactaca 120
acaacttggt ctagcaaacc ttgctgccta ctctcagcaa cagcagtttc ttccattcaa 180
ccaactagct gcattgaact ctgcttctta tttgcaacaa caacaactac cattcagcca 240
gctacctgct gcctaccccc agcaatttct tccattcaac caactggcag cattgaactc 300
tcctgcttat ttacagcagc aacaactact accattcagc cagctagctg gtgtgagccc 360
tgctaccttc ttgatacaac cacagttggt gccccgggt tttttttccc cctttttt 417

<210> 1860

<211> 226

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-F4

<400> 1860

aattccggtc gachacggt cgggttgccc togetctcct ggctctcgct gcgagcgcca 60
cctccacgca tacaagcggc ggggtgcggct gccagccacc gccgccggtt catctaccgc 120
cgccgggtgca tctgccacct cgggttcacc tgccacctcc ggtgcatctc ccaccgccgg 180
tccacctgcc gccgccggtc cacctgccac cgnccgtcca tgtgcc 226

<210> 1861

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-F5

<400> 1861

gcgcccacgc gtccgacgcg tcaggtgcac cgagcacccg ctgaattgaa cacctcgact 60
accatggaca tggaggcgca ggcggcaaag gcgagaaccg aggaccgcg acgtcctccc 120
agcgacggcg gggccgcagg agcgaagtgc gtggaggggtg gaggcgacgg tgccagccgg 180
agcacggcga agcgggaggc cgagaaaagcg gctgccgtgg aggcggaggg cgccaagccg 240
ctgccgctgc cgtacgaacg ggtgccgcag ccgcgcgacg tgtacaacga gcagctggag 300
cggatgtgaa tgcattgttt ctgctcggca gtctcgatga accccaatcg acccaatgat 360

cgatcgagcg atcctgctac aggcctt

387

<210> 1862

<211> 389

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-F6

<400> 1862

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gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg 120
ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt 180
cgagttcctg aggcaccagt gcagcccggc ggcgacgcc tacggctcgc cacagtgcc 240
ggcgctgcag cagcagtgcg gccaccagat caggcaggtg gagccgctgc accggtacca 300
ggcgacatac ggtgtggtcc tgcagtcctt tctgcagcag cagccgcagg gcgagctcgc 360
ggcgctgatg gcggcccang tagcgcagc 389

<210> 1863

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-F7

<400> 1863

attgaactct cctgcttatt tacagcagta acaactacta ccattcagcc agctagctgg 60
tgtgagccct gctaccttct tgatacaacc acagttgttg ccgttctacc agcacgctgc 120
gcctaacgct ggcaccctct tacaactgca acaattgctg ccattcaacc aacttgcttt 180
gacaaaccca gcagcgttct accaacaacc catcattggt ggagccctct tttagatatc 240
ttatgagtta tagttcaata ataaatcatt caaccaactg gcagcattga actctcctgc 300
ttattttacag cagcaacaac tactaccatt cagccagcta gctggtgtga gccctgctac 360
cttcttgatt caaccacaga taaaaaaggg gtggttcccc 400

<210> 1864

<211> 344

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-F9

 <400> 1864

 acaacaacga cccccgcttc accaccatca gcagctccgc cctccagctg agactctcga 60
 gctgcgagtc gtacgtccct gcgcccggcg ctcgtcgtac gtactacgac actacgtacg 120
 agcgcaagcg cttgacacac gaccgattca gcacgcatgg cgatgaaaaa gggcggcggc 180
 ccggcggggc tgaagcagat cctgaggcgg ggctcaaccc tggggcgggc taagcggacc 240
 ggcggaaccg ggtccaagga ggaggccaag gcggcgggcaa cgggcttgcc gtcgaacttg 300
 ccggccggca ctttgggggg gacctgggccc aagcggggccc gccg 344

<210> 1865
 <211> 400
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-G1

 <400> 1865

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 aatgttcgta aagagcccaa gcaaaggagt gaaccagat gaagctgtgg ccatgggtgc 120
 tgccattcag ggtggcattc tccgtggaga tgtaaggag cttcttcttc ttgatgttac 180
 tcccctgtca ctaggtattg agacactcgg tggatatctc accagattga tcaacagaaa 240
 cactacaatc cctacaaaga aaagtcaggt gttctcaact gctgctgaca atcagaccca 300
 agtgggtatc cgtgtgttgc aaggtgagcg tgaaatggca gcagacaaca agcttcttgg 360
 tgaatttgac cttgtgggca ttccacctgc cccccaaaaa 400

<210> 1866
 <211> 273
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-040-Q1-K1-G10

 <400> 1866

atctacatta acagttctcc ttcaacgata attcaaaact actaggacgg caatctcaac 60
 tccacaaagg agaagatddd gatcggagag gatctttcat ggaaatcaaa cttcaaagtc 120
 tgggcttgct tatctcagtg gtcaatcagt tgttgggtct gctggactgc cccaagttga 180
 agcaaaatat cctgctttgc tattcaaaca gcagctcgtg gatctaantt gaaagggtta 240
 tggcatgata agtgacagcg tgaaaaagga gct 273

<210> 1867
 <211> 105
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-040-Q1-K1-G11
 <400> 1867

gctagtcata actactcacg ttcgtccacc agagcagaca acaatggcca tggagacgtg 60
 cttcagagcg tgggcgctgc acgccccgcg tggcagcaag gacag 105

<210> 1868
 <211> 302
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-040-Q1-K1-G2
 <400> 1868

attgagacca gcaagcaaca tagaaagtag aatccattag caacaataga gcaacaatgg 60
 cgaccaagat attttccctc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
 caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
 caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240
 tcgcagcaag caacatacct ttatcgccct tgttgggttca acaatcacca gccctatctt 300
 tg 302

<210> 1869
 <211> 143
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-040-Q1-K1-G3

<400> 1869

aagaccaacc agcaacatag aaaggcgtat acaggatcag caatcaagac accatgacga 60
ccgagatagt tctcgtcctg atgctgcttg ctgtagctgc acagcgccgt tagcgcgaca 120
atgctctgtc aatgctcaca agc 143

<210> 1870

<211> 287

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-G4

<400> 1870

cccacgcgtc cggggtgatt gaagagatga aacgggatgg ccgtgttgct cctgattgga 60
caagatacag caacctggct tccatatatg ttgaggctgg aatgtttgag aaggcagagg 120
ctgctcttaa ggagcttgag aagcgggaaca ccagcaatga catcgaagcc taccagttcc 180
ttattacatt gtatgggcgt acacagaact tagtggaagt tcaccgtgtc tggcgatcgc 240
tgaagcggga taaccctaga atggcaaaca tgagctacct taacatg 287

<210> 1871

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-G7

<400> 1871

gaaagcacia tagtgtacca acaatggctg ccaaaatatt ttgcctcctt atgctcctgg 60
gtctttctgc aagtgtgct acggcgacca ttttcccaca atgtccacaa gctcctatag 120
cttcccttct tccccgtac ctctcaccag cgggtgtctt ggtatgtgaa aaccaattc 180
ttcaacccta taggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 240
tcctccaaca atcatcagcc ctattacagc agttaccttt ggtgcattta ttggcacaaa 300
acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360
aacaacagtt tcttccattc aaccaa 386

<210> 1872

<211> 406
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-G8

 <400> 1872

 atgctatgca gtatggcaca gttcctgttg tccatgcaac tgggggcctt agagataccg 60
 tggagaactt caaccctttc ggtgagaatg gagagcaggg tacagggtgg gcattcgcac 120
 ccctaaccac agaaaacatg ttgtggacat tgcgaaactgc aatatctaca tacagggaac 180
 acaagtcctc ctgggaaggg ctaatgaagc gaggcattgc aaaagacttc acgtgggacc 240
 atgccgctga acaatacgaa caaatcttcc agtgggcctt catcgatcga ccctatgtca 300
 tgtaaaaaag gaccaaagtg gtggttcctt ggaagatcat cagttcatca tcctatagta 360
 agctgaatga tgaaagaaaa cccctgtaca ttacaattt gggggg 406

<210> 1873
 <211> 404
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-G9

 <400> 1873

 gaagaaaaca cctgggagca gtaatgccaa ccatgggcat ccaagacata agcgtcggca 60
 cgcagacggg taaaacattg atcaaccatg gtcattatct ttttataact gatacaacca 120
 ttattttccc tatactatag atccatttcc cctttagggtt gggaaataat ccaaaatatg 180
 gtggtgtaaa ataggggttg cttttcaatg gatttttgag ttttcaactg gggattttga 240
 ttttgattgg gccaaataat ggaagttgga caatgtaacc tttaactgat ttggtggcct 300
 ggattagggt caataactta taatggccaa acctaatggg gaatttacag ttttcccct 360
 tgaataatgg ggtttttgcc cccaattttt tgaatggacc tttta 404

<210> 1874
 <211> 312
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-H1

<400> 1874

cagaaacaca ccaagcgaag ctacctagca acgacttaac aacaatggct accaagatgt 60
tagcgctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
aatgctcact tgctcctagt gccattatac cacagttcct ccgaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagcctaca ggctacaaca agcgcttgcg gcgagcgctc 240
tacaacaacc aattaaccaa ttgcaacaac aatccttggc acatctaacc atacaaacca 300
atcgaacaca ac 312

<210> 1875

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-F11

<400> 1875

cccacgggtcc gttcccaaatt cccgtccctt ccacccgcac tccattggcg ccgctccctt 60
cccctggccg ccgccggaga tctgatccga tccgatccga tccgtttgtg cttgtgctgc 120
aagagtgaga agtaaaaaat atggctgccc tgccactggc cacggccgaa gtatccaacc 180
ctaaccttaa ccggaccatg accggcaacc tcggggcgct caaccaatc ttccaaacta 240
ccggccgggc ccggtctttg gccggcccaa tggcacgcct aagggttcc aagaccagct 300
tccgggtccc gaggtccttg aggagaaagg gcccgtagg ggc 343

<210> 1876

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D3

<400> 1876

caagcaacat agaaagtaga atccattatc aacaatagag caacaatggc gaccaagatg 60
ttttccctcc ttatgctcct tgctctttct acatgtgttg ctaacgcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aattatagct 180
tcagtatgtg aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc 240

aacatacctt tatcgccctt gttgttttcaa caatcaccag ccctatcttt ggtgcagtca 300
 ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctgt gatcaaccaa 360
 gtagctctgg caaacctttc tccc 384

<210> 1877

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D4

<400> 1877

caacaagcaa catagaaagt ggaatocagt agcaacaata gagcaacaat ggcgaccagg 60
 atacgttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
 cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
 gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgagca 240
 agcaacatac ctttatcacc cttgttttcaa caatcgccag ccctatcttt ggtgcagtca 300
 ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360
 gtagctctgg caaacctttc tccctactat cagcaaccaa aaacccccta aaaaaatttt 420
 tttttt 425

<210> 1878

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D5

<400> 1878

ctttcagcaa gcgctgctac ctgcactttt attccacaat gctcacaaca atacctctgt 60
 ccggtgacag ccgcgggatt tcaataccca actatacaat cctacatggg acaagaggcc 120
 atccaagcaa gcatcttacg gtcattagca ttaaccctcc aacaaccata tgctctattg 180
 caacagccat ccttagtgca tctgtatctc caaagaatcg cggcacaaca actacaacaa 240
 cagttgctac caacaatcaa tcaagtagtt gcagcgaacc ttgctgctta cctccagcaa 300
 caacagtttc ttccattcaa tcaactagct ggggtgaacc ctgctatcta cttgcaggca 360

caacagctac taccatttaa ccaa

384

<210> 1879

<211> 322

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D6

<400> 1879

cccaattggt tgggtataatc ctttagcttc aatagagcaa caatggcgac caggatatgt 60
tccctcctta tgctgcttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180
gtatgtgaaa acccagctct tcaaccatat aagcttcaac aagcaatcgc agcaagcaac 240
atacctttat cgcccttggt gtttcaacaa tcaccaaccc tatctttggt gcagtcattg 300
gtacatacca ttaaggcaca ac 322

<210> 1880

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D7

<400> 1880

gcgcccacgc gtccgctggc ttaattttgc atttgattac ttccatacgt aggctggaca 60
agaacgtgga agattacatg taaatccaga agaagatgag caaccgaaga agaaagtctg 120
acttgggaagc ccagcaaadc agtggatttc agtttataat gctagaaggc ccatgaagca 180
gagataccat tacaatgtag cagatgccag gcttcatcaa cacatagaga agggtaatga 240
agatggattg ttcattagtt cagtagcatc ttcagccaat ctttgggctc tcattatgga 300
tgcagggact ggtttcacat cccaagtata tgaactgtca cccatattcc ttcataagga 360
ttggattatg gagcagtggg aaaataa 387

<210> 1881

<211> 313

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-040-Q1-K1-D8

<400> 1881

ggctgaccgt gttattccca ctttaaaacc aaagcatttg ttttctagga aacgcactgt 60
tggaaagaca agcaggcgat aagctcagta cctcactgga tctggtagta aaggactggt 120
gcaatttttg tgtgagcaat ttgatgaaac gggagctttt atgtctagca cttatgtatg 180
ctacttattt atgaaatgtc ttgctgttgc tgtatcatgg tcctctttaa gacagtttta 240
ctagtttata catgtattac ttogaattgg ttgggttact atatattagc tntctggtgt 300
ttgattctct tat 313

<210> 1882

<211> 145

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D9

<400> 1882

gatgttcagt ttgatgatat tgttgttgca tgtggcagtg gtggaaccat tgctggcctt 60
gctggaggat ccagattgag cagcttaaat acaaaagtgc atgcattctc tgtttgtgat 120
gaccctgaat acttctatga ctatg 145

<210> 1883

<211> 323

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-E1

<400> 1883

gtcagctagc tgctgctac cccagcttt ttctttcatt caaccaactg gcagcattga 60
actcggctgc ttatttacia cagcaacagc taccaccatt cagccagcta gctgatgtga 120
gccctgttgc cttcttgaca caacaacatt tgttgccgtt atacttgac gctgaccta 180
acgctatcac actacttacg actgcaacaa ttgctgccat tcaacctact tgctttgaca 240
gaccctacat tgttctacca tcaactcata actggtggca ccttttttta tattgctcat 300
gatgcataca ccgattttga atc 323

<210> 1884
 <211> 388
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-040-Q1-K1-E11

 <400> 1884

acttgcttga gtagcgaagc gcgagagcaa tggcgctcgct gtcgtgcgcc tncacgctgc 60
 cctggacccc cgctcctac ccgcggccct cggcggggcg ctgcctcagc gcctctcgcc 120
 gggctccgctc gctggtcctc gtccgccaag gggagggtca gaaggctcgg ccgggcatat 180
 tggccggccg cctaaaagaa gggggggaaa aaggggagtc cctggaaggg ccaaccggat 240
 tctaccgga ctttcttctt tccaagggcc agggttccct tctgacccc gaagtcctta 300
 agggaatgcc actggagccg gagagaattg aagctgtgaa aaagccggtt aaagaagacg 360
 cttacaact tgctcgagat tttgaaac 388

<210> 1885
 <211> 412
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-E12

 <400> 1885

gcttcttttg tttgtacaaa acaagaaggt cgaagattgg acagaccac gttttccac 60
 tgtgcaaggc atagtacgtc ggggcttgaa ggttgaagca ttgatacagt ttatactcca 120
 acagggtgct tcaaaaaatc tgaatctcat ggagtgggat aaactctgga caatcaacaa 180
 gaagataatt gatccagtgt gcgcaaggca tactgctgtg ctaaaagacc agcgtgtcat 240
 cttcactttt accaaatggc caaaagaacc ctttggtcga aatttaacca ggccttagaa 300
 attttaaggt gcctgaaaga aaggttccac cttggcaac cgaatttggc ttgaatattc 360
 ctaagccgga actatttacc aaggtgaagg aattaccctt atgggatggg gg 412

<210> 1886
 <211> 404
 <212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-040-Q1-K1-E2

<400> 1886

gccggcccaa ggggaccagg gacgtcgtgt cgtgggtgct tcggatgaag gaggagggca 60
 gggaggctga ggtcttccat ccgagcatac accacgagga caaccaaggc cagctgggtga 120
 ggatcctcga cattgcgtgc ctttgtgtca ccgctgctcc taaatcgaga ccgacgtcgc 180
 agcagctagt cgcgtggctg gacgacatcg cggaggggatg aggcttcatt ctttgctgca 240
 gtcctagttc ttcccagtgc cttcagtttg atagttcctt aagaatgatt attagctgtg 300
 tacataatat ttacagagtg atatgccgag agttctcttc ttgtctntct ctttatctgt 360
 .ctagtgatgc tgatgacatc aacatcttca tttacttttg gggg 404

<210> 1887
 <211> 226
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-040-Q1-K1-E4

<400> 1887

gttttagatcg cgagggccgc cctttttttt tttttttttt tttttttttt ttttttttgt 60
 ttttggtttt tttttttttt ttttattttt tttttttttt tttttttttt tttattaata 120
 aaaaattatt ttttttttta tttttatatt gtttattatt tataattaaa aaaaaaatt 180
 attttataat taataaaaaa aaacaaaaat aaaaagatac atttac 226

<210> 1888
 <211> 386
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-040-Q1-K1-E5

<400> 1888

aaagaagaag ggcccccttc aacagacaga tcttccatca atacctgttg atgagcttgt 60
 cccctcagga gaatttccag agggcgaaat ccaacaatac aaggatgaca atctgtggag 120
 aacaactagt gaggaaaaga gggacctgga acgactgcaa aagccaatat acaactctgt 180

tcgccaagca gcagaagttc atagacaggt gcggaaatat atgaggagca tcataaaacc 240
 tggaatgtta atggttgatc tatgtgagac attggaaaac atggtccgga aacttatcaa 300
 ggagaatgga ctgcaagctg gcattgcttt tccgactgga tgctccttga attgggttgc 360
 agtcactgg actccaaatg cgggcg 386

<210> 1889

<211> 230

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-E6

<400> 1889

agttgctgcc tttctaccag cagtttgagg ctaacccgc aaccctctta caactacagc 60
 aattgttgcc ctttgtccaa cttgctttga caaacccagc agcctcctac caacaacaca 120
 tcattggtgg tgccctcttt tagattgctt attagttgta attcaataat aaagtttttt 180
 ggatgatgta tgtggccaac cagaaataag aagttacatt tccagattct 230

<210> 1890

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-E7

<400> 1890

gattcttgct ccattctcagg agctgagcaa gcaaggggtgt atcctggagg ctgttattga 60
 agcaagtgct actgaaatta tcaatctcat ggatagccta aatgaatggg acagtaaagt 120
 gggcgatggg gactgtggaa gcacaatgta tagagggtgca acagctattc ttgaagatat 180
 gaaaaagcgt taccctatga atgatgcagc gggaacaata aatgaaattg gggcaacaat 240
 ccgaaggggtg atgggtggaa caagtggaat cttgtatgcc atactctgca aggctgcgta 300
 tgcaagctta aagcagagct caactgtcac tgcaataaaa tgggctgatg ctttagaggc 360
 ctccattgct gctgttagca aata 384

<210> 1891

<211> 313

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-E8

 <400> 1891

 attgagattt atctcgatca atatattgat tatttctagg aaacacacgt cgggatgggg 60
 gcaccattat cgagtacatg tcatatgtaa tctaaaagat ggcacctcca acgatggggtt 120
 gctgcctcga caagacagga ttcatcaaag agaactgggt gtatggcagc aattgttgct 180
 gctgtaggaa ggcggcgacc aatggggttag ccactaccaa tggattaagt aactgttgctc 240
 gctgtttag gtacgcagca gagttcgaca gagtcagtcg attgaatgga agcagctggt 300
 gcaagtaagc aac 313

<210> 1892
 <211> 395
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-F1

 <400> 1892

 gccgccaaca tctccggcgg ccacgtcaac cgggccgtca ctttcggcgc gctgatcggc 60
 ggccggatct gctcgtccg ctccctcgtc tactgggccg cgcagctgct cggcgccgctc 120
 gccgcccgcgc tcgtgctcag gctcgccacc ggagggatgc atctgccgga gtacgcgctg 180
 gcggtgggcg tgagcggatg gaacgcggcg gtgctggagg cggccatggc gttcgggctc 240
 atgtacgcct actttgcgac ggtgatggac aaagcgcgga gggtcgcgc cggcgccgga 300
 gcgctggcgg cgccgctcgc cgtggggctc ctggcggggg ctaacgtgct ggcctgcggc 360
 gcgctggaag gcgccgtgat gaatcccggc gccgg 395

<210> 1893
 <211> 356
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-D2

 <400> 1893

 cagcaagcaa catagaaagt agaatccatt agcaacaata gagcaacaat ggcgaccaag 60

atattttccc tccttatgct ccttgctctt tctacatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180
gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240
agcaacatac ctttatcgcc cttgttggtt caacaatcac cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tgtgat 356

<210> 1894

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B5

<400> 1894

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tcctcgccga tcgatacgat ggccgtcttc tccgacctcc acaccgccga cggcctcaag 120
tccctcgagg ctcacctcgc cggcaaaacc tatgtgtctg gtgactccat tactaaggat 180
gacattaagg tcttcgccgc ggtgccgtcg aagcctggcg ctgagtttcc taatgccgcc 240
cgctggtagc agaccgtctc tgcggctgta gcctcaagat tccctggtaa ggctgttggt 300
gtaaatctgc ctgcgggatc agctcctgcg gcagctgctc ctgcggatga ggctgaagat 360
gatgatgacc ttgatctttt tgg 383

<210> 1895

<211> 303

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B6

<400> 1895

atgattattg cccacggata gtcattgttat ctacataatc cgttttgccca ctcgtcaggg 60
ttctgcattg tgaatagagg ttcatctttg tgattagatt gccaccgccg ctgcttttcta 120
ctcattcgac gaatgttttg caaagaagaa atctggttta tcttaccctc gattccttcc 180
tatgatacaa ctaacaaaat gaattggtac attcaggtat ctttaaaacc ttttcacttc 240
caaattagaa tgatatcatg ctcaagaggt aacatttttc tgatgttttt taattttaat 300

agt

303

<210> 1896
<211> 381
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B7

<400> 1896

ctttgttgcc aaaaacggga gacagtttga gaatatcaca cggcagagga atcctggaga 60
tacaccattc aagtttctat ttgacaaaca ctgtccagac taaaaatatt atgagtttca 120
gcttgctgaa gaggaaggg ctcttgetca gtcaaaggag gctgaagcat cgaaagctaa 180
ctctggcact gcaagcttca aggcaccagg tgggtacttat agaagctcat ttgaacagaa 240
gtctaactat cagacacctg catcagcttt gtacggggca tatgagggtta gttcttccca 300
aggaagctct tctagttacg gtgatcatac agctccacca tcagatcctg tagcattgat 360
ggaattctat gcaaagaagg c 381

<210> 1897
<211> 284
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B9

<400> 1897

aaaatatatt ctgctcttgc tgaagtggca acggatagag aggacatgga caactcactc 60
agtgactggg tgaaagcttt atctatgttg gagcatttgg ttgagcctga ccatcgtcga 120
gttgtggaat taaacttccg catttgtttg gtttatgaac tagtttccaa gatcggagaa 180
acaatttcat actgggcaaa aacaatttgc ctatgcaaag tacgcataca gagcccgaag 240
aggtecaaag atgctttgct ggctggtata cattgtgatg cgtt 284

<210> 1898
<211> 384
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C1

<400> 1898

ccgacgcgtc cggattgggt tcaaagttgg gcttttggac agctgtggtg tgcacggcag 60

ctctgtgact tgtgaggagg aagggaggaa gaaagcggat ccatggcgtc gaagcggatc 120

ctcaaggagc tcaaggacct gcagaaggat cctcccacct cttgcagcgc aggccctggt 180

gccgaagata tgttctactg gcaggcgacg attatggggc catcagatag cccatacgtc 240

ggtggcgtat ttttggtcac tattcacttt ccaccggact acccattcaa accaccgaag 300

gttgcattca agacgaaggt ttaccatccg aatatcaaca gcaacgggag catctgtctt 360

gatatcttga aggagcaatg gaggc 384

<210> 1899

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C10

<400> 1899

cagacgaata atctcttctt cacctcaacta acaccagcta gcaactcttt ctctcctgca 60

ataagggccg ctgcgtcctc ctccctcccag ccgcagctgg tcgcggcggc ggcggtcctg 120

gcagcggcgc tgctgctgct ggcggcgggg gccgggacgg cgtcggcggc ggtgagctgc 180

ggcgaggtga cgtcgtcggg ggcgcctgct ctcgggtacc cgatgggcaa cgcggcgtcg 240

ccctccgcgg cgtgctgcag cgggggtgcgc tcgctcaaca gccgcgccgc gtcggcggcg 300

gaccgcgaag ccacctgcaa ctggcttaag aacatgaccg gcccg 345

<210> 1900

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C12

<400> 1900

aattccccgg ggagaacctg atgctcaccg aaaccgtcgg ccctgaacaa attgcagagg 60

tggtgagccg ttggacgggt attccagtga cccggcttgg ccagaacgac aaggagaggc 120

tggtcggcct ggctgacagg cttcaccaga ggggtggtcgg ccagacagag gctgtgagcg 180

ccgtcgcaga ggcggtgctg aagtcgaagg ccggtcttgg caggccacaa cagcccactg 240
gctcgttcct cttcctgggt tcgactggcg ttgggaaaac cgaacttggc caaggcctta 300
cccgacagct tgttgaccac caaaaccttt ttggtcggat tgacatgttg gaggacctgg 360
agcaacactt gggtgcttgg cttattggag caccacctgg cttacttggg cattaataag 420
gtggggccact tactgaa 437

<210> 1901

<211> 293

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C2

<400> 1901

ggttatgatt ccaggatata tggtcgatgt ggtcttggta atgggtatgga taacaggtag 60
aggcccaggg catgtagtgg atactatggg tatggcaatg agagtcagga tggaacaatt 120
gagttaaaca gaggtcctag atctggccgg ttcaagaacc agaaattgta cggtcatact 180
gtcactattg ctgtgaaagg gcagtctctc cttcttagtg aaagcaagaa tgatagtgtc 240
gtgcctgata gagcaaagta caatagagat gacttccctg gtcagtacga tgc 293

<210> 1902

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C3

<400> 1902

gaattcccag gcaggcaggt cggcgaggag ggcaggaaga ccgaagaccg agccgtgcgg 60
gggctcggga cgggaacggg acaggacccc aaaatctcag atccttcttg cccgcccggc 120
cgtgcccgtc gacgcgtcgt tcttgccggc cgcgcctcac ctccgccctc tctcctcca 180
gggggatcgg atacgccaca ggctgcgcga tgggtgctgtg ggtcttcggc tacggctccc 240
tcacttgga ccccggttc gacttcgacg aaaaaatcct cggcttcctc aagggtaca 300
agcgcaacct taatctcgtg tgcattgacc acagaggcac accggagcat ccggcgagga 360
cctgcacgct tgaaaccgac gacg 384

<210> 1903
 <211> 416
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-C5

 <400> 1903

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accacgcgt ggcgattgta ttgtcagcat gccaagtgtg tgatgtattt caatggactc   60
atcgagatcg ggcggcctgt agctactcca taatgcttgt caatgccgga tgaaagtctc  120
atgccatgtg ccaaggcacg gatctcatac tcgtacttcg cacactatgg gtactgacaa  180
ctgccaaagg cttttcggct gcaatgacta gctaccacat atagtatgat agtggttgta  240
gcgtgttcag agccattgca tcatgctggg atttgcgggt taaatcctga tataatgggt  300
actatgttca tgaacgaccc catatactgg accacctaga agcttgaatt gactattgat  360
agaatacgtg aaacgggttc ataggatttt acgcgtgcat caagcatgctg aaagat    416
  
```

<210> 1904
 <211> 393
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-C6

 <400> 1904

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gcgattagca acaatagagc acaatggcg accaagatat tttccctcct tatgctcctt   60
gctctttcta catgtgttgc taacgcgaca attttccctc aatgttcaca agctcctata  120
gcttcccttc ttccccata ccttccatca attatagctt cagtatgtga aaaccagct  180
cttcaaccat ataggcttca acaagcaatc gcagcaagca acataccttt atcgcccttg  240
ttgtttcaac aatcaccagc cctatctttg gtgcagtcac tggtaaaac catcagggca  300
caacagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc aaacctttct  360
ccctactctc agcaacaaca atttcttcca ttc                                393
  
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<210> 1905
 <211> 343
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C7

<400> 1905

cgaccacgc gtacgcaagg gcgaggcaat caggtttaaa attttgcttt taaaaccctg 60
taccgagccc agcgggtggg tgacacgtga acaggactgg accaacaat ctcatatt 120
gcatacaaac ccattcctaac cgatctacac gacctgcata acgatccatc cacaccttac 180
atcgacgta ctgttgacta atataagctc tactaagatg cgacaattat ctgtccatca 240
tatagtccat aactttgatg cgtattcttg gacactactc actttacacc ggactacca 300
ttctaaccag ctacagacgc attcaaaacc aaggtttacc ata 343

<210> 1906

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C8

<400> 1906

gacgatcagc caacaagga tatatcgtag gcacttttag ctcccatgta ctgcttccag 60
ctatctggat acgtcagcat taaaaagcag tacatgcgta cgtctccacc atctcagttg 120
ctcagacaca tacatatcag tgacaatcaa taactcaaca atcatcctat atcattaact 180
tcttatecca taccttccat caattataac ttcattatgt gaaaaccag ctcttcaacc 240
atatatgctt caacaagcaa tctcatcaag caacatacct ttatcgccct tgttgtttca 300
acaatcacca gccctatctt tgggtgcaatc attgtttcaa accatcatgt cacaaca 357

<210> 1907

<211> 273

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-C9

<400> 1907

gcgagaggcg aggagagaga aagttctcga gctagacgag cgccgtgcga ggagagaagc 60
gaggtgagcg gtgaagcggc ggccgtgggc ggaggccaag gagaggcgaa tggcatcccg 120
ccgaacgtca ccatttatat caacaacctt aacgagaaga tcaagctcga agaacttaag 180

aagtcacctaa cagccgggttt tttccagttt gggaaaattc ttgatgggct tgctttcaag 240
actttggagc ataaagggtca agcttgggtt ggc 273

<210> 1908

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D10

<400> 1908

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aggcgggttca atgggcttgt cgatgtctac cgcaagacac tcaagtctga tggatttgct 120
gggctttacc gtggatttaa catctcctgt gttggaatca ttgtttatcg tggctctgtac 180
tttgggctct atgattccat caagccagtt gtccttactg gcaacctcca ggacaatttc 240
tttgccagtt tcgctctggg ttggctgata actaatgggtg ctggctcttg atcttaaccc 300
atcgataaccg tccccaaaag gatgatgatg acctctgggtg aagggtgtcaa gtaccagaac 360
ttcttggacc ccttccagca gattcttaaa aagggaaggg ccaagttcct gtgtaagggt 420
gc 422

<210> 1909

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-D11

<400> 1909

gggaatcccc gcaggcaaag cgaaagcatc cgcgcgagag gcgtcgcgtg ttccttgctt 60
cgtgggtcag tgccgtggcc cttccgcttc ccccgatatc gcccgctctg ttcccgcccc 120
gagcgaaccg gccgcccggc aagccaatcc acacgaaccg tggcgggctg gcgcttaacc 180
cggcggccgg gcttggggcc gccctgggtc caacaaccgt gaccaggcat tcattgagcc 240
gaacctgaac ttcgtcaagg cgcttcagga gctcaagaac ctgcgcccgc agctctactt 300
gggcttcgag tactgcgaga agtcctacct tcgcagcgaa cacaagccag tgggtgcttga 360
caacatgaaa gattacgctg tcagggccct ggtcaacgct gtcgacca 408

<210> 1910
 <211> 194
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-040-Q1-K1-D12

 <400> 1910

gtcggatgtg gcattggtgg tagctcaagg tacttggcga agaaatacgg agcgcagtg 60
 actgggatca cgttgagccc tgttcaagcc gagagaggaa atgctctcgc tgcaacgcag 120
 gggttgtcgg atcaagttac tctgcaagtt gctgatgctc tggagcaacc gtttcctgac 180
 gggcagttcg atct 194

<210> 1911
 <211> 379
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-040-Q1-K1-B4

 <400> 1911

ctgtatcgcc cttgttgttt caacaatcgc cagtctatc tttggtgcag tcattggggc 60
 aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tctgatcaac caagtagctc 120
 tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 180
 cactgaaccc tgctgcttat ttgcagcaac aactattacc atttagccag ctagctactg 240
 cctactctca gcaacaacaa cttcttccat ttaaccaatt ggccgcactg aaccccgctg 300
 cttatttgca gcagcaaata ctactaccat ttagccagct agctgcagca aaccgtgctt 360
 ncttcttgac acagcaaca 379

<210> 1912
 <211> 439
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-F3

 <400> 1912

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gacattatcc ctccttgcgc ttcttgccct ttttgtgagt gcaacaaatg cgttcattat 120
tccacaatgc tcaattgctc cgagtgccat tattccacag ttctccctc cagttacttc 180
aatgggcttc gaacaccag ctgtgcaagc ctataggcta caacaagcgc ttgcggcgag 240
cgtcttagaa caaccaattg cccaattaca acaacaatcc ttggcacatc taaccatata 300
aaccatcgca acgcagcagc aacaagcact gagccaccta gccgtggtga accctatcgc 360
ctacttgcaa caacagctgc ttgcatccaa cccacttgct ttggcaaacg tagctgcata 420
ccaacaacaa caacagttg 439

<210> 1913

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F5

<400> 1913

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gttgacaaaa acattagggc gcagcaacta caacaacttg tactaacaaa ccttgctgca 120
tactcttagc aacatcaatt agttccattc aaccaactgg ctgcattgaa ctctgctgct 180
tattcgcagc accaattacc attcatacag atagttgatg cctaccacca gcaatttctt 240
acattcaacc aactatcagc attcaactct gctgcttatt tacagcagca acaactacta 300
ccattcagtc agctagctaa tgtgaaccct gatgccttct tgacacaaca acatttgcta 360
cagttctacc tgcacgctat gcct 384

<210> 1914

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F7

<400> 1914

cagaaacaca cctagcgaag cgcactttca acgacctaac aacaatggct tccaagacat 60
tatccctcct tgcgcttctt gccctttttg tgagtgaac aaatgcgttc attattccac 120

aatgctcact tgctccgagt gccattattc cacagttcct cctccagtt acttcaatgg 180
gcttcgaaca cccagctgtg caagcctata ggctacaaca agcgcttgcg gcgagcgtct 240
tagaacaacc aattgccccaa ttacaacaac aatccttggc acatctaacc atacaaacca 300
tcgcaacgca gcagcaacaa gcactgagcc acctagccgt ggtgaaccct atcgccctact 360
tgcaacaaca gctgcttgca tccaacccaag ttgctttggc aaacgtagct gcataccaac 420
aacaacaaca gttgcaaca 439

<210> 1915

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F8

<400> 1915

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aagctagcag tggcttatag tgtcctgaag actgggtccag ggacagaaat aatggtttca 120
aagaatttgc aggtttgcag tgactgtcat gaatggatga agataatctc aaaggtactt 180
tgccgtgtta ttattctgag ggatagagtt cggtttcacc ggtttgaaag tggatgggtgc 240
tcttgcagg attactggta ggcttttctt ggagcaatac agatgtaatc cagctaatac 300
aaaacgagca gttcctaggg gatacatctg accttaattac tttctccatc tggagaattt 360
gggtgcttggt ctgctgctgc atatcaatga aatgaaatat ttggacaatt gggttacta 418

<210> 1916

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F9

<400> 1916

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gcataaagta tctaggaaag ttgttgcac tcaagttcct agagatatgt ggcacacctg 120
ttgatgagct ccctaaggaa attgggcac tgcagatctct tcagacactg ctattagtca 180
atattggact agacgagcta ccaccgactg tttgctcgct tacacgggtg atgtgcttga 240

tagccgaggg gttcaaaagg tttccagctg acaggatggg gaacctaacg tccctggagg 300
agctacgatt acggatggta gttggtcgga gtgccacca agccctagta gtagagcttg 360
gcaagctgac aaggtttgag gtggtcagca tcgccttttc 400

<210> 1917
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G10

<400> 1917

catttattgg cacaaaacat cagggcacia caactacaac aactcgtgct agcaaacctt 60
gctgcctact ctcagcaaca gcagttacct ttggtgcatt tgttggcaca aaacatcagg 120
gcacaacaac tacaacaact cgtgctagca aaccttgctg cctactctca gcaacaacag 180
tttctgccat tcaaccaact agctgcattg aactctgctg cttatttgca gcaacaacaa 240
ctactaccat tcagccagct agctgctgcc taccctcggc aatttcttcc attcaaccaa 300
ctggcagcat tgaactctca tgcttatgta caacaacaac aactactacc attcagccag 360
ctagctgctg tgagccctgc tgccttcttg acacagcaac atttggtgcc gttctacctg 420
cacactgcgc ctaacgttg 439

<210> 1918
<211> 226
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G11

<400> 1918

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aggctcgcag gctcctatag ctccagttct aactcagctc gtttcaccaa accctgctgc 120
ctactgggaa cacctgattc tataccacta tctgactctg caggcctttg cagctgacat 180
actacatcta tcaccgttgc ttattccaca gtcattagct ctatta 226

<210> 1919
<211> 411
<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-022-Q1-K1-G12

<400> 1919

aacccgatcg acaccatgag ggtgttgctc gttgccctcg ctctcctggc tctcgctgcg 60
 agcgccacct ccacgcatac aagcggcggc tgcgggtgcc agccaccgcc gccggttcat 120
 ctaccgcccgc cgggtgcatct gccacctccg gttcacctgc cacctccggt gcatctccca 180
 ccgcccgtcc acctgcccgc gccgggtccac ctgccaccgc cgggtccatgt gccgccgccg 240
 gttcatctgc cgnccncacc atgccactac cctactcaac cgccccggcc tcagcctcat 300
 cccagccac acccatgccc gtgccaacag ccgcatccaa gcccgtgcca gctgcaggga 360
 acctgcccgc ttggcagcac cccgatcctg ggccaatgcg tcgagtttct g 411

<210> 1920
 <211> 287
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-022-Q1-K1-G2

<400> 1920

agaagatgaa agaaatgagc acagattaaa gagcaaagag ctttgttcca agggatgca 60
 tattcggtgg gaaagcattt gccacatata tacaggcaaa aaggatcggt aaatttatta 120
 cagatgtggc agctaccgtg aaccatgatt cagacattgg agatttggtg aaggtcgtat 180
 ttgttccaga ctataatgtt agtggtgccg ancgctaat tcctgccagt gaattatcac 240
 agcatatcag tactgctgga atggaagcta gtgggaccag taacatg 287

<210> 1921
 <211> 443
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G3

<400> 1921

atcacaaaac atccttctat cagtactatc gatcatcatt catcttagta gtataggcac 60

caaatcaaat ctgcgacatc aattatctaa ctccaaaaac catgaagctg gtgcttgtgg 120
 ctcttgcttt cattgcttta gtatcaagtg tatcttgtac acagacaggc agctgcagct 180
 gtggtcaaca acaaagccat gagcagcaac atcatctcac aacatcatca tgcacaataa 240
 caacatcatc aaccagcagc acaacatcac tcagcagcag cagcaccaac aacaacaagt 300
 tcacatgcaa ccacataaac atcagcatca acaagaagtt catgttcaac aacaacaaca 360
 acaaccgag caccaacaac aactactaca acaacagcac caacaacaac atcaatgtga 420
 aggccaacaa caacatcacc aac 443

<210> 1922

<211> 403

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-G4

<400> 1922

agccctatct tgggtgccat catgggtcca aaccatcagg gccaccagc tgcagcacct 60
 cgtgctacct gtgatcaacc aagtagctct ggcaaacctt tctccctact ctcagcaaca 120
 acaatttctt ccattcaacc aactgtctac actgaacctt gctgcttatt tgcagcaaca 180
 actattacca tttagccagc tagctactgc ctactctcag caacaacaac ttcttccatt 240
 taaccaattg gccgcactga accccgctgc ttatttgcag cagcaaatac tactgccatt 300
 taacgagcta gctgcagcaa gtcgtgcttn cttcttgaca cagcaacagt tgctgccttt 360
 ctacaagcag tttgcgggta accccgcaac cctcttaca cta 403

<210> 1923

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G5

<400> 1923

cagcattcaa taacacacca gttattgcac tagcaacgac ctaacaccaa tggctgcaa 60
 gatattagcc ctcttgccgc ttcttgccct tttagtgagc gcaacaaatg cgttcattat 120
 tccacagtgc tcaattgctc ctagtgccat tattccacag ttcttccac cagttacttc 180

aatgggcttc gaacatccag ccgtgcaagc ctacaggcta caactagcgc ttgcggcgag 240
 cgccttacia caaccaattg cccaattgca acaacaatcc ttggcacatc taaccctaca 300
 aaccattgca acgcaacaac aacaacaaca acagttttctg ccatcactga gccacctagc 360
 cgtgggtgaac cctgtcacct acttgcaaca gcagctgctt gcatccaacc cacttgcttt 420
 ggcgaaagta tctgca 436

<210> 1924
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-G6

<400> 1924

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 gcttcaacaa gcaatcgcag caagcaacat acctttatcg cccttggtgt ttcaacaatc 120
 accagcccta tctttggtgc agtcattggg acaaaccatc agggcacaac agctgcagca 180
 actcgtgcta cctgtgatca accaagtagc tctggcaaac ctttctccct actctcagca 240
 acaacaattt cttccattca accaactgtc tacactgaac cctgctgctt atttgcagca 300
 acaactatta ccatttagcc agctagctac tgccactct cagcaacaac aacttcttcc 360
 atttaaccaa ttggccgcac tgaacccgc ttgttatttg cagcagcaaa tactac 416

<210> 1925
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F2

<400> 1925

acaagctcct atagcttccc ttcttttccc atacctctca ccagcgggtgt cttcaatgtg 60
 tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcatcttacc 120
 attatcacc ttgttctctc aacaaccgtc agccctatta cagcagttac ctttgggtcca 180
 tttggtggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 240
 tgcatactct cagcaacatc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 300

tgcttatttg caacaacaat taccattcaa ccagctaggt gcttgctacc cccagcaatt 360
tctttcattc aaccaactag caacattgaa ctcttggtgct tatttacagc agcaaccact 420
actacca 427

<210> 1926
<211> 443
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-022-Q1-K1-E1
<400> 1926

caaaaacaca ccaagcgaag cgcactatca acgacctaac accaatggct accaagatat 60
tagccctcct tgcgcttctt gcccttttag tgagcgcaac aaatgcgttc attattccac 120
agtgtcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggetacaact agcgcttgcg gcgagcgctt 240
tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg 360
tgaaccctgt cacctacttg caacagcagc tgcttgcatc caaccactt gctctggcga 420
acgtagctgc ataccagcaa caa 443

<210> 1927
<211> 425
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-022-Q1-K1-E10
<400> 1927

atagaaagca caatagtgtg ccaacaatgg cagccaaaat attttgcttc cttatgtctc 60
ttggtctttc tgcaagtgtt gctaccgcaa ccattttccc acaatgtctc caagctccta 120
tagcttcctt tcttccccca tacctctcac cagcgggtgc ttcaatgtgt gaaaccccaa 180
ttgttcaacc ctacaggatc caacaggcaa tcgcaacagg catcttacca ttatcacctt 240
tgttctcca acaaccgtca gccctattac agcagttacc tttgggtccat ttggtggcac 300
aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct gcatactctc 360

agcaacatca gtttcttcca ttcaaccaac tggctgcatt gaactctgct gcttatttgc 420
aaaca 425

<210> 1928
<211> 422
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E11

<400> 1928

ttgcctcctt atgctccttg gtctttctgc aagtgtgct acggcgacca ttttcccaca 60
atgctcacia gctcctatag ctcccccttct tcccccgtag ctctcaccag cgggtgtcttc 120
ggtatgtgaa aaccaattc ttcaacccta taggatccaa caggcaatcg cagctggcat 180
cttaccttta tcacccttgt tcctccaaca atcatcagcc ctattacagc agttaccttt 240
ggtgcattta ttggcacaaa acatcaaggc acaacaacta caacaacttg tgctagcaaa 300
ccttgtctgcc tactctcagc aacaacagtt tcttccattc aaccaactag ctgcattgaa 360
ctctgcttct tatttgcaac aacaacaact accattcagc cagctatctg ctgcctaccc 420
cc 422

<210> 1929
<211> 413
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E12

<400> 1929

caagcggcgg ctgcggctgc cagccaccgc cgccggttca tctaccgccg ccggtgcac 60
tgccacctcc ggttcacctg ccacctccgg tgcattctcc accgccggtc cacctgccgc 120
cgccggtcca cctgccaccg ccggtccatg tgccgccgcc ggttcattctg ccgccgccac 180
catgccacta ccctactcaa ccgccccggc ctacgcctca tccccagcca caccatgcc 240
cgtgccaaaca gccgcattca agcccgctgc agctgcaggg aacctgcggc gttggcagca 300
ccccgatcct gggccagtgc gtcgagtttc tgaggcatca gtgcaaccgc acggcgacgc 360
cctactgctc gcctcagtgc cagtcgttgc ggccgcagtg ttgccagcag ctc 413

<210> 1930
 <211> 375
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-E2

 <400> 1930

ccagcagcag gcgcgccgcg ggggcttggt ctccgtcgct cgtcgtgtgc gccagcgccg 60
 gcatgaacgt cgtcttcgtc ggcgccgaga tggcgccgtg gagcaagacc ggcggcctcg 120
 ggcagctcct cggcggcctg ccgccggcca tggccgcgaa cgggcaccgt gtcattggctg 180
 tctctccccg ctacgaccag tacaaggacg cctgggacac cagcgtcgtg tccgagatca 240
 agatgggaga cgggtacgag acggtcaggt tcttccactg ctacaagcgc ggagtggacc 300
 gcgtgttcgt tgaccaaccc actgtcctgg agagggtttg gggaagaccg aggagaagat 360
 ctacggccct gtcgc 375

<210> 1931
 <211> 421
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-E3

 <400> 1931

gcgtgctcaa ggcgaacgta ataaagtctg agcctgagct gccccagtgg aagagctccg 60
 ccatcgccga cctcggcggtg ggcaccgaga acaagatcgc catgcacttc gacagggctc 120
 tttggcccaa cgtcgaggtg ctgggaatgg tcgggcccgc gcccaaagcc tgtgggtact 180
 tcctgaacct gcacaaagcc accggcaatc cggtcctcgt gtacatggcc gccggaaggt 240
 tcgcccagga ggtggagaag ctgtcggaca aggaagccgt cggcctggtc gtttctcacc 300
 tgaagaagat gctcccggat gccactgaac cgacgcagta cctgggtgtc cgatggggct 360
 togaccccaa ctccctgggg tcctactcgt gcgacctggt cgccaagccg gccgacgtgt 420
 g 421

<210> 1932
 <211> 398

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-022-Q1-K1-E4

<400> 1932

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ccccgcgtc cggtcagcct agcaattagc tcatcgactc cagattggag aactcgacac   60
catgaaggtg ctgatcgttg cccttgctct cctggcgctc gctgcgagcg ccgnctccag  120
tacaagcggc ggctgtggct gccagacacc accgtttcat ctaccgcctc cgttctatat  180
gccgcctccg ttctatctgc cgccgcagca gcagccgcag ccatggcaat accccactca  240
accaccgcag ctaagcccgt gccagcagtt cggatcctgc ggcgtcggca gcgtcggcag  300
cccgttcctg ggccaatgcg tcgagttcct gaggcaccag tgcagcccgg cggcgacgcc  360
ctacggctcg ccacagtgcc aggcgctgca gcagcagt                               398
  
```

<210> 1933
 <211> 252
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E5

<400> 1933

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gcgggtcgca gccctatgat caggttgctt ggacgggctt gatcgtttat cgccgggaag   60
ctgctttggg gtcaaccaac ggatctcgta tcgtcgtctt cagaatatcc cagattatgc  120
gcttctgcat aagaacaaca catcaaaagc gagatcagct cagtaccaac aaaaccttaa  180
caaccacgtt tcatgtctga tctctacatg catcttccat ctgcctgtga tccgtttgct  240
gaagcaaattg ct                                                         252
  
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<210> 1934
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E6

<400> 1934

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ccccgcgtc cgggcttctc ctccccctcc gggtcggggt cgggttcgtg aggttctccg   60
  
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gggttcgggtt tcgtgggtga gcg gatcgag atggcggcgt cggatgttga gtaccgctgc 120
 ttcgtcggcg gcctcgctg ggccacggac gaccactccc tccacaacgc cttcagcacc 180
 tacggcgagg tcctcgagtc caagatcatt ctcgatcggg agacgcagag gtcccgcggc 240
 ttcggcttcg tcaccttctc cacggaggag gcgatgcgga acgccatcga gggcatgaac 300
 ggcaaggagc tggacggccg caacatcacc gtcaacgagg cccagtcccc cggcggccgt 360
 ggaggcggcg gcggcggcgg gtacgggtgtt ggccgtggag gcggcggcta cggcgggtggc 420
 gggcggcgtg atggcg 436

<210> 1935

<211> 301

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E7

<400> 1935

gcgcgcacgc gtccggctct ctccttccat accggatcgg gttcgggttc gtaagggtcg 60
 gcagggttcg gtttcgtggg tgagcggatc gagatggcgg cgtcacgatg ttgagtaccg 120
 ctgcttcatt ggccgactcg cctgagccac ggacgaccac tccatacaca acgcctacag 180
 cacctaaggt gaggacctcg agtccaagat catccatgat cggcagacac ataggtccct 240
 cagcttctgc tatgtcacct tttccacgga agtagcgatg cggaaacgcca tctagggcat 300
 g 301

<210> 1936

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-E8

<400> 1936

cggacgcgtg ggttttcagc attcatttac acaccaagcg aagcgcacta gcaacgacct 60
 aacaccaatg gctaccaaga tattagccct ccttgcgctt cttgcccttt tagtgagcgc 120
 aacaaatgcg ttcatatttc cacagtgtc acttgctcct agtgccatta ttccacagtt 180
 cctcccacca gttacttcaa tgggcttcga acatccagcc gtgcaagcct acaggctaca 240

actagcgctt gcggcgagcg ccttacaaca accaattgcc caattgcaac aacaatcctt 300
ggcacatcta accctacaaa ccattgcaac gcaacaacaa caacaacaac agtttctgcc 360
atcactgagc cacctagccg tggatgaacc tgtaacctac ttgcaacagc agc 413

<210> 1937
<211> 376
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-022-Q1-K1-E9
<400> 1937

cccacgcgtc cgttcagaaa cacacctatc gaagcgact agcaacgacc taacaacaat 60
ggctaccaag atattatccc tctttgcgct tcttgccctt tttgtgagcg caacaaatgc 120
gttcattatt ccacaatgct cacttgctcc tagtgccatt attccacagt tcctccctcc 180
agttacttca atgggcttcg aacacccagc tgtgcaagcc tacaggctac aacaagcgct 240
tgccggcgagc gtcttacaac aaccaattgc ccaattacaa caacaatcct tggcacatct 300
aaccatacaa accatcgcaa cgcaacagca acaacaattt ctaccagcac ttgaccaact 360
agcttgggtg aaccct 376

<210> 1938
<211> 439
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-022-Q1-K1-F1
<400> 1938

gtcagcctag caattagctc atcgactcca gattggagaa ctgcacacca tgaaagtgct 60
gatcgttgcc cttgctctcc tggcgctcgc tgcgagcgcc gntccagta caagcggcgg 120
ctgtggctgc cagacaccac cgtttcatct accgcctccg ttctatatgc cgctccgtt 180
ctatctgccg ccgcagcagc agccgcagcc atggcaatac cccactcaa ccaccgcagc 240
taagcccgtg ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg 300
gccagtgcgt cgagttcctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc 360
cacagtgccg ggcgctgcag cagcagtgct gccaccagat caggcaagtg gagccgctgc 420

accggtacca ggcgacata

439

<210> 1939

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F10

<400> 1939

tgcgcttctt gcccttttag tgagcgcac aaatgcgttc attattccac agtgctcact 60
tgctcctagt gccattattc cacagtctct cccaccagtt acttcaatgg gcttcgaaca 120
tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgcct tacaacaacc 180
aattgcccac ttgcaacaac aatccttggc acatctaacc ctacaaacca ttgcaacgca 240
acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg tgaaccctgt 300
cacctacttg caacagcagc tgcttgcatc caaccactt gctctggcga acgtagctgc 360
ataccagcaa caacaacagc tgcaacagtt tatgccagtg ctcagtcaac 410

<210> 1940

<211> 323

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F11

<400> 1940

aacaaaggaa tccattacaa gagtaccatg tggcccatat ccctgggtgct ttgttctttg 60
atgttgatgg aatatccgac agaacatcta gtttaccaca catgctgcca tctgaaaagg 120
cattttcagc tgctgtatct gctcttggca tctacaacaa agacgggata gtagtttatg 180
atggaaaggg gctgttcagt gctgctcgtg tttggtggat gttccgtgta tttggacatg 240
ataaagtttg ggtgttggat ggaggtttgc cccaatggcg cgcttctggg tatgatgttg 300
aatcaagtgc ctctaagtga tgc 323

<210> 1941

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-F12

<400> 1941

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaata 60
ttgtgccttc ttatgtcctt tgggtcttct gcaagtgtg ctacggcgac cattttccca 120
caatgtcac aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
tcggtatgtg aaaaccaat tcttcaacct tataggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacaacag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca acaacaacaa cta 453

<210> 1942

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D9

<400> 1942

cacaatctca cagccctcga aggcaccatc cgcgcgcgcg ccaccgctcc gaaattacag 60
ccatcgtagt gcggcggcta ggtcggccgg cgtttgagg agctccgaag atgtggtgcc 120
agtcgtgcaa ggaagggtag gacgaggagg acgccgggac ctgcaaggag tgctacgagg 180
aggccagcga gacggaggag gagctcaagc gggagatcga cgacctccgc tcccgcctcc 240
tcttctctcg cctaccctcc cctaccctcg acgccgcac cggccccaac tgcgacctcc 300
tcttccacgc catccctcc accggcgcgg gaggcgaacg cgatgctggg cgcacctcg 360
acacaccgc cgtgccgcgc catcgctca tccctgccag cagatctct gttttc 416

<210> 1943

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C6

<400> 1943

cacgcataca agcggcggtt ggggtgcca gccaccgcc cgggttcac taccgccgcc 60
 ggtgcatctg ccacctccgg ttaacctgcc acctccggtg catctccac cgccggtcca 120
 cctgccgccg ccggtccacc tgccaccgcc ggtccatgtg ccgccgccg ttcacatgcc 180
 gccgccacca tgccactacc ctactcaacc gccccggcct cagcctcac cccagccaca 240
 cccatgcccc tgccaacagc cgcacccaag cccgtgccag ctgcaggga cctgcccgt 300
 tggcagcacc ccgatcctgg gccagtgcgt cgagttcctg aggcacagt gcagcccgac 360
 ggcgacgcc tactgctcgc ctcagtgcc gtcgttgccg cagcagtgtt gccagcagct 420
 caggcaggtg gagccgcac 439

<210> 1944

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-C7

<400> 1944

cacatatgcc tgtacctcct ctacactcag ttccattatc agttgcactt aagcagcatc 60
 cagtagaggg tacagccaca caacagtttg ttcataacgt gccaatagac aagtctggta 120
 caaataaccg atttcaggag tcctctgctt ctgctgggcc atcagacggc aacaaaacct 180
 tcccaaatgc agccgtttct cagtacaggg atgagttagg tcttgctgaa cagccagcct 240
 caaccagctc aagctcccaa actgttcagc cttcgtttgg ccaggcgggc ttgatcagca 300
 atgaagtccc aaccagtgcc aaagccatgg ttagggtagc cccatccaaa gtcaaccctg 360
 gaattgcagc agggggcggt ggcagcacga acgccncca ggtcaccagc ataccttcca 420
 agacccatca gtcct 435

<210> 1945

<211> 299

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C8

<400> 1945

cagaaacaca cgaagcgaag cgcactatct acgacctaac aacatgggct acacaagata 60
 ttacacctac tagcgcttat tgcgctagct gcgagcgcat caaatgcgca cattattcca 120
 caatgctcac tagctcctag agcgatacat tccacgatta tctgccacca gttactatca 180
 atgagcattt aaacacgcta gctgcgcaag gcaacacgca acatcaagcg catgcagaga 240
 gcgtgttaca actaccaata gccgaatggc aacaacaatc cttgccacat ctaacaata 299

<210> 1946

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C9

<400> 1946

agtgccagta ttccacagtt cctcccacta gttacttcaa tgggcttcga acatccagcc 60
 gtgcaagcct acaggctaca actagcgctt ggggagcg cttacaaca accaattgcc 120
 caattgcaac aacaatcctt ggcacatcta accctacaaa ccattgcaac gcaacaacaa 180
 caacaacagt ttctgccatc actgagccac ctagecgtgg tgaaccctgt cacctacttg 240
 caacagcagc tgcttgcatc caaccactt gctctggcga acgtagctgc ataccagcaa 300
 caacaacagc tgcaacagtt tatgccagtg ctcaagtcaac tagccatggg gaaccctgcc 360
 gtctacctac aactactttc atctaaccgg ctgcgggtgg gcaatgcacc tacgtacct 420
 caacaa 426

<210> 1947

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D1

<400> 1947

acgatctgaa atagctgatg cgtctgctat tcctcaaggt ctacttcatg gaggtcctgc 60
 atacgggtgg atattccact gcactgacat aacctccgat ggcttcagaa tctgctgtaa 120
 accggttgta tgctagcagc ttggaccgaa ttgatgctga acattacact gctcccagga 180
 tggttcttgc agcatcacga gttgatcatg atgcgctgat gtcagtagta gaaccacttc 240

tgtctgacct tacgagcgtg aaacgtcctg tagagccaaa atctgtgtac atgggaagag 300
 actatctgtg tctagcagat tgttcaaaca cacgcatggc acttgctttt gacgtgccac 360
 gttgatggaa tcactagata actgctat 388

<210> 1948

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D10

<400> 1948

caaagagatg agcttgaggc acagctgaag aagggttaata tatcactaaa tgctgctgct 60
 ggacgggctca aacaaactag ggaagagagg gaccaatttg acgaagcaaa caatcaaadc 120
 atatttagct tgaaaaaaaa ggaggatgac ctctcaaaat ccattgcctt atgtaatgtg 180
 gaatccaatg ttgtcaagat ctggatcggc ttccttgagg actcgtggaa gctgcagtc 240
 tcatacaatg aacagaagga taataaaacg tgtgatgagc tggagaaatg tgtgagtgat 300
 tttctaaagt tgacaaaaca tcctctttca gcattcaagg aagtcctaag ccaattgatt 360
 gagaatatcg aaacatatgt cggtaacttg gctgtcttaa cctcaaagga agaagaaaaa 420
 gaacatgggg atgatgaggc a 441

<210> 1949

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D11

<400> 1949

gcaacataga aagtggaatc cagtagcatc aatagagcaa caatggcgac caagatactt 60
 tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttcctttctt ccccatacc ttccatcaat gatagcttca 180
 gtatgtgaaa acccagctct tcaaccctat aggctccaac aagcaatcgc agcaagcaac 240
 atacctttat cacccttggt tcaacaatcg ccagccctat ctttggtgca gtcattggta 300
 caaaccatca aggcacagca gctgcagcaa ctctgtgtac ctgtgatcaa ccaagtagct 360

cttgcaaacc tttctcccta ctatcagcaa caacaatttc ttccatgcaa ccaactatct 420
acac 424

<210> 1950
<211> 407
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D12

<400> 1950

cagcctagca attagctcat cgactccaga ttggagaact cgacaccatg aagggtgctga 60
tcgttgccct tgctctcctg gcgctcgtg cgagcgccgc ctccagtaca agcggcggt 120
gtggctgcca gacaccaccg tttcatctac cgctccgtt ctatatgccg cctccgttct 180
atctgccgcc gcagcagcag ccgcagccat ggcaataccc cactcaacca ccgcagctaa 240
gcccgtgcca gcagttcgga tcctgcggcg tcggcagcgt cggcagcccg ttcttgggcc 300
agtgcgtcga gttcctgagg caccagtgcg gcccggcggc gacgccctac ggctcgccac 360
agtgccaggc gctgcagcag cagtgtgtcc accagatcag gcaagtg 407

<210> 1951
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D2

<400> 1951

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaata 60
ttttgcttcc ttatgtcctt tggcttttct gcaagtgttg ctaccgcaac cattttccca 120
caatgtcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcaatgtgtg aaaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gttccttcaa caaccgtcag ccttattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagca 360
aaccttgtcg catactctca gcaacatcaa gttcttccat tcaaccaact ggctgcattg 420
aactctgtcg cttatttgc 439

<210> 1952
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D3

<400> 1952

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ggcatcttac ctttatcacc cttgtttctt caacaaccgt cagccctatt acagcagtta 60
ccttttggtgc atttgttggc aaaaaacatc aaggcacaac aactacaaca acttgtgcta 120
ggaaaccttg ctgcctactc tcagcaacag cagtttcttc cattcaacca actggctgca 180
ttgaactctg ctgcttattt gcaacaacaa ctaccattca gtcagctagc tgctgcctac 240
ccccagcaat ttcttccatt caaccaactg gcagcattga actctgctgc ttattttacaa 300
cagcaacagc taccaccatt caaccagcta gctgatgtga gcccttgtgc cttcttgaca 360
caacaacagt tgttgccgtt ctacctgcac gctgcgccta acgctggcac cctcttataa 420
ctgcaacaat t 431
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<210> 1953
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D4

<400> 1953

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aaaagtcgag cataaatttg acatggaacc tcacagcgat aatttggcga actatggaaa 60
gttatgccgt gaaagaacac aaaagtacat ggtaaactct agacaagtgc aggtacttga 120
caatgaccat ggaatgagca tgaggccaat gcctggcatt gttggtctca tatcttctag 180
ttcaaaggaa aagaagaagc aagcaccagt gaaaccatct gatgccaaaa gaactcgtag 240
ggatcgcacg gagatggaaa acgttatatt caagcttttt gaaaggcagc ccaattgggc 300
cctaaaagca ctctgtcaag aaactgacca gccagagcaa ttcttgaaag agatattgaa 360
cgatctgtgt gtgtataata aacgagggtc aaaccaggga acgcatgagc tcaagcctga 420
gtacaa 426
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<210> 1954

<211> 286
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-D5

 <400> 1954

 gcgggcacct agctgtgttg aaccttgatt cctactcgca acagcaactg cttgcggccg 60
 acccatttgc tctggcgaac gtcgctgcat accagcaaca acaacagctg caacagctta 120
 tgccaatgct cagacaacta gccatggtga accctgccgt ctacctaaa ctactatcat 180
 ctaacccgct cgcgaggttc aatgcaccta catacctaca acaacaatcg ctgcaacaaa 240
 ttgtaccagc tctgactcac ctagctctga caaacatgc ttccta 286

<210> 1955
 <211> 437
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-D6

 <400> 1955

 gcgaagcgca ctagcaacga cctaactcca atggctacca agatattagc ctccttgcg 60
 cttcttgccc ttttagtgag cgcaacaaat gcgttcatta ttccacagtg ctcacttgct 120
 cctagtgcc aatttccaca gttcctccca ccagttactt caatgggctt cgaacatcca 180
 gccgtgcaag cctacaggct acaactagcg cttgcggcga ggccttaca acaaccaatt 240
 gcccaattgc aacaacaatc cttggcacat ctaaccctac aaaccattgc aacgcaacaa 300
 caacaacaac aacagtttct gccatcactg agccacctag ccgtggtgaa cctgtgcacc 360
 tacttgcaac agcagctgct tgcattcaac ccacttgctc tggcgaacgt agctgcatac 420
 cagcaacaac aacagct 437

<210> 1956
 <211> 438
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-D7

 <400> 1956

gcaacâtaga aagcacaata ttgtactaat aatggcagcc aaaatatttt gcctcattat 60
gctccttggt ctttctgcaa gtgctgctac ggcgagcatt ttcccgaat gctcacaagc 120
tcctatagct tcccttcttc ccccatacct ctcaccagcg atgtcttcag tatgtgaaaa 180
tccaattctt ctaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaactcgtg ctagcaaacc ttgctgcta 360
ctctcagcaa cagcagttac ctttggtgca tttgttggca caaaacatca gggcacaaca 420
actacaacaa ctcgtgct 438

<210> 1957

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-D8

<400> 1957

ctggcaaacc tttctcccta ctctcatcaa caacaatttc ttccattcaa ccaactgtct 60
aactgaacc ctgctgctta ttgagcaa caactattac catttagcca gctagctact 120
gcctactctc agcaacaaca acttcttcca ttttaaccaat tggccgcact gaaccccgct 180
gcttatttgc agcagcaaat actactgcca tttagcgagc tagctgcagc aagtcgtgct 240
tccttcttga cacagcaaca gttgctgctt ttctacaagc agtttgcggc taaccccgca 300
accctcttac aactacaaca attggtgccc tttgtccaac ttgctttgac aaaccagca 360
accttctacc aacaacacat cattggtggt gccctctttt agatttctta tgagttatag 420
ttcaataata aagttt 436

<210> 1958

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C5

<400> 1958

gggagaagcg cctgccctac cggtttccgt acccggggc acgctccgct gtttggagcg 60

cgtttatctt aactcgatgc tggagtgggc gtcggacccc gaggtgacgg tgttcacggc 120
gtgtgacgcc tgcacgtccc gggacgtctt cctggcgctt ctgcgcgacg cgggtgctgcc 180
gcacccttgg ttccgcgcgg tctgactcgg cgggtggccga cactgtcgta ccgtgggtcac 240
ggtgtccgtg acgcctatcg tcgacgcctg ccgcgccgag ctccctgtcg tgcttgctcg 300
cgcgcac 307

<210> 1959

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H7

<400> 1959

acgagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaata ttttgcgctc 60
gtatgtctct tgggtcttct gcaagtgtg ctacggcgac ctttttcccg caatgtctcg 120
aagctcctat agcttccctt cttgcaccgt acctctcacc agcgggtgtct tcgggtatgtg 180
aaaacccaat tcttcaactc tacaggatcc aacaggtaat cgcagctggc atcttacctt 240
tatcaccctt gtcctccaa caatcatcag ccctattaca acagttacct ttggtgcatt 300
aattggcaca ctacatcagg gcacagcatc tacaacaact cgtgctagca aaccttgctg 360
cctactctca gcaacagcag cttcttccat tcaaccaact aggttcattg aactctgctt 420
gttatatgca gcaacaacaa ctaccattca gg 452

<210> 1960

<211> 217

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H8

<400> 1960

tcgggagccg ctgactagct acctagctcg ctagtcttact catttagcgg cgatgagtaa 60
cgtagtgtca cccatcacca tgggtggcag tgtgagcaat gacctgaatg aaccattgaa 120
atggaaagga ataatatata aggaaaaaag atgattggaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaagaaaaa caataaaaaat agacaaa 217

<210> 1961
 <211> 402
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H9

<400> 1961

cggacgcgtg ggcggacgcg tggtcggacg cgtgggcgga cgcgtggggc cgtcgtcggg 60
 gcagtgtcca tagccaccgc aggagactga aatggggggg tttgtcaaga cccacaagag 120
 caatgcatac ttcaagcgtt tccaggtgaa gttcaagaga aggcgcgctg gcaagacaga 180
 ctacagggcc aggataaggc tgattaacca agacaaaaac aagtacaata cacccaaata 240
 cagatttgtt gtgcgaatta ccaacaagga catcacagca catatcatat ctgctagtat 300
 agcatgtgat atggttcttg cttctgctta ctgcgatgag ttgccacgat atgggtctcga 360
 agttgggtctg accaactatg cagctggcta ctgcactggc ct 402

<210> 1962
 <211> 346
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A1

<400> 1962

cgagcatgca cgcacgctga tcatccatct ataaatacgc caattagcaa actagagcta 60
 ctagcagcag gccaatggag aaccctccga gcacccatgt gactcccatg gctccggcca 120
 tgtcggcgca gttcacaaga ataaccttca gcaacctgtt tgtccgtcgg gctggcccag 180
 gcagcacgga gctgaccgtg gagggaaggc catccgacca gctgggcagg agaaacctca 240
 ctgacagccc cgtatttgac ggccgtggcc ctgacgccag cctcgtgggt cgcgtacagg 300
 gagtcgctac ccagatgggc gacgtgcgcc agttgtacac cgtcgt 346

<210> 1963
 <211> 170
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A10

<400> 1963

ctggcttctc ctccccctct taccaagtc ttttcgggtt agggttactt agggttttgt 60
ggagggggcga tggcggcggc tgatgtggag taccgttgct tcgtcggcgg gcttgccctgg 120
gccaccagca acgagtcgct ggagaatgcc ttgccttct acggcgagat 170

<210> 1964

<211> 211

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A11

<400> 1964

agcttggctt ggattggcaa aggattactt atgagaggag acgagaaagt gaaggacatt 60
tcaaggttgg cttcttaaga tcctatgctc agatgagatt ttgtctacag ttccatgcc 120
ccaggaagaa ctttatggcg gtgattcatc agatacttct cttgcaatat ctgcaactag 180
tgcattccat gtgatgatga atgattcaaa a 211

<210> 1965

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A12

<400> 1965

gaatcctcgc tctgccgagc gcttaacagc acatgaagtt ctatgccatc catggattcg 60
tgaccatgga gtagcttctg accgtccact ggatccagct gtcttatctc gcattaagca 120
attctctgca atgaataagt tgaagaaaat ggctttgaga gtaatagctg agagcctatc 180
agaagaggaa attgcgggggt tgaaggaaat gttccaacca tggacactga caacaggggc 240
gcaattacct acaatgaact aaagaaagga tggaaaaaat ttggttccac actgaagaca 300
cttaaaatcg tgaacttaat ggatccactt gatttcacca ccatgggacc attggcctcc 360
ttggaatcaa tggttgcaac tttgatttta attagcctga accccaaaaa cattttg 417

<210> 1966

<211> 379

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A3

<400> 1966

ctgggtcttc agaccattag ctttatctac tccagagcgc agaagaacct gatcgacacc 60

atgaggggtgt tgctcgttgc cctcgctctc ctggctctcg ctgcgagcgc cacctccacg 120

catacaagcg gcggctgcgg ctgccagcca ccgccgccgg ttcattctacc gccgccggtg 180

catctgccac ctccggttca cctgccacct ccggtgcata tcccaccgcc ggtccacctg 240

ccgccgccgg tccacctgcc accgccggtc catgtgccgc cgccggttca tctgccgccg 300

ccaccatgcc actaccctac tcaaccgccc cggcctcagc ctcattccca gccacacca 360

tgcccgtgcc aacagccgc 379

<210> 1967

<211> 346

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-A4

<400> 1967

gaagagcaac ggtcaggtec tggccattaa cgagatcttc gagcgtaacc cgacgacgag 60

caagaactat ggcatctggc tgcgctacca gagcagaacc ggctaccaca acatgtacaa 120

ggagtaccgc gacacaacct tgaacggcgc tgtagagcag atgtacaatg agatggcttc 180

tcgccaccgc gtgaggtccc cctgcatcca gatcatcaag accgccacag tacacttcaa 240

gctgtgcaag agggacaaca ccaagcagtt tcacaacagt gagatcaagt tcccactcgt 300

gtaccgcaag gtcaggccgn cgaccaggaa gctgaagacc acgttc 346

<210> 1968

<211> 378

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A5

<400> 1968

gcgaggacat gaagttcttc gccaccccg cgggtgcacgg ctcgctggcg aaccagggtg 60

tgcacccggc cgacctgtgc ttcaagctcc cgcacggggt gagcctggag gagggcgcca 120
tgtgcgagcc gctgagcgtg ggcgtgcacg cgtgccgccg cgcgggggtg gggcccgaga 180
cgggcgtgct cgtggtgggc gccggcccca tgggcctggt gtcgctgctg gcggcgcggg 240
ccttcggcgc gccgcgcgtg gtggtcgtgg acgtggacga gcaccgcctg gccgtggcca 300
ggtcgctggg cgcggacgcg gcggtgcggg tgtcgccccg cgcggaggac ctggcggacg 360
aggtggagcg catccgcg 378

<210> 1969

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A6

<400> 1969

gccatatgtt gcgtacggat accccaatct gaagagcgtt agggagttga tctacaagag 60
aggttacggg aagctgaaca agcagaggat tccacttagc aacaacagtg tcatcgagga 120
gggcctcggg aagcacaata tcatctgcat tgaggacctt gtccacgaga tcatgacggt 180
gggcccgcac ttcaaggagg ccaacaactt cctctggccg ttcaagctga atgcaccct 240
cggcggcctc aagaagaaga ggaaccacta cgtatagggc ggtgacgccg gaaaccgtga 300
gaactacatc aacgagctca tcaagaggat gaactaggtt ctctcttgta tcctgtgaga 360
atgc 364

<210> 1970

<211> 404

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-040-Q1-K1-A8

<400> 1970

caatgatcag gttcgctttg agcttacatt ctatgcttta aatcctgaac ttaaagtgg 60
ggcaccttgg agggagtggg atatcacagg acgtgaagat gctattgaat atgcaaagaa 120
acataatgta cctgttccag tttcaaagaa atcaatatac agccgagacc gaaacttgtg 180

gcaccttagc catgaggggtg acatcctgga agaccagca aatgagccaa aggaagatat 240
gtatatgatg tcgattgctc cagaaaatgc gcncctgaaa cctgagtaat tggagaatgg 300
tatcatnngc tgtgtncctg tttcaatcaa tggccgagac ctgtaaccag catccctctt 360
ngcggagctc aatgaaaatc gtggaaagcc caaattgggg gggg 404

<210> 1971

<211> 215

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-A9

<400> 1971

ctccggtggc tccaccacta gcaacccgtg cagcgagccc accccgacca ctgccatgtc 60
gaggcgcggc gactgggtct acgagaacaa cggcaggacc tgcgtggcca tacgacggct 120
ccgattactg agtcgtcgcg gcggacaccc gtctctctga ccgatacagg catcctaacg 180
cgcgaccact ctaagatctg cgacctgggt gccaa 215

<210> 1972

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B1

<400> 1972

gaccagcagg caccttagaa ggtggattcc attaccacca ttggagcacc attggcaacc 60
aagatttttt ccttctaag gctcctgggt cttcttcag gggtggttac gccaccattt 120
ttccttaatg gttacaagg tctatatggt tccttttttc cccatatact ttcattaatt 180
atatggttag agtgtgagaa ccccgatctt taaacctata tgcgttaaca cgcgctctca 240
gcgagcgaca tacccttata gccctgtgg ttgtaacaat caccagacct atatttggtg 300
cagacattgg tgcaacacca tcatggcggc acaactgctg caac 344

<210> 1973

<211> 304

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B11

<400> 1973

ccatggccga cgtccgcgcg cagaacgcgc tcgcggagat ccaggagttc acctccttcc 60
tcagggtgct cgggagctac cccatggaca tgacgccgtg ggacgccgcg ctctgctctc 120
gcgccagcca gtactagtga ttgggcgaac aatggtcaag ccgccaaggg ataacggcaa 180
ttcattgggtt tttaatcagt ccggcattac cagaaaccgt gctttgggtc tttttatcca 240
ttctcttttc tggatggctt ttcttaaaaa aaaaaacgga gaggagcgag ggtcgattgg 300
gggg 304

<210> 1974

<211> 116

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B12

<400> 1974

gcaagctata gtcgaattat cagtagcaca acataaccct ctgatatgtt cgtgggttat 60
ccgtgggttc tgaattgtag acttctgcgt tgaagctcgt gctactgttt gttttc 116

<210> 1975

<211> 308

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B2

<400> 1975

cacgcgtacg caggagcagc ggtcatgtcc tggccatttt cgtttatctt cgagcgtaac 60
ccgaccaccg tcaggaacta tcgcatctgg gtgcgctacc agagcagaac cggctaccac 120
aacatgtaca aggagtaccg cgacacaacc ctgaacggcg ctataaagca gatgtacaat 180
gagatggatt ctgccaccg cgtgaagtcc cctgcatac agatcatctc gaccgtcaca 240
gtacacttta agctgtgcaa gagggacaac accaagcagt ttcacaacac ttagatcaag 300
tttccact 308

<210> 1976

<211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H6

<400> 1976

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attgagacca acaagcaaca tagaaagtgg aatccagtag caacaacaga gcaacaatgg   60
cgaccaagat attttccctc cttatgctcc ttgctctttc tgcattgtgt gctaacgcga  120
caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat  180
caatgatagc ttcagtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa  240
tcgcagcaag caacatacct ttatcacctt tgttggttca acaatcgcca gccctatctt  300
tggtgcagtc attggtacaa accatcaggg cacagcagct gcagcaactc gtgctacctg  360
tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc  420
cattcaacca actgtctaca ct                                         442
```

<210> 1977
 <211> 385
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-040-Q1-K1-B3

<400> 1977

```
cccacgcgtc cggcaacata gaaagcacia tagtgtacca acaatggcag ccaaaatagg   60
ttgctctctt atgctccttg gtctttctgc aagtgtgct acggcgacca ttttcccgca  120
atgctcgcaa gctcctatag ctcccttctt tccccgtac ctctcaccag cgggtgtctt  180
ggatgtgaa aaccaattc ttcaacccta caggatccaa caggcaatcg cagctggcat  240
cttaccttta tcaccttgt tctccaaca atggcagcca aaatattttg cctccttatg  300
ctccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg ctcgcaagct  360
cctatagctt cccttcttcc cccgt                                         385
```

<210> 1978
 <211> 454
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G12

<400> 1978

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ttggtctttg tgcaggtgct gctacggcga gcattttccc gcaatgctca caagctccta 120
tagcttcctt tcttccccca tacctctcac cagcgatgtc ttcagtatgt gaaaatccaa 180
ttcttctacc ctacaggatc caacaggcaa tcgcagcagg catcttacct ttatcacctt 240
tgttctcca acaatcatca gccctattac agcagttacc tttggtgcat ttattggcac 300
aaaacatcag ggcacaacaa ctacaacaac tcgtgctagc aaaccttgct gcctactctc 360
agcaacagca gttacctttg gtgcatttgt tggcacaaaa catcaaggca caacaactac 420
aacaactcgt gctagcaaac cttgctgctt actc 454

<210> 1979

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G2

<400> 1979

gtgtaccaac aatggcagct aaaatatttt gcctccttat gtccttggt cttttctgcaa 60
gtgctgctac ggcgaccatt ttcccacaat gtcacaagc tcctatagct tcccttcttc 120
ccccgtacct ctcaccaacg gtgtcttcgg tatgtgaaaa cccaattctt caaccttaca 180
ggatccaaca ggcaatcgca gctggcatct tacctttatc acccttggtc ctccaacaat 240
catcagccct attacagcag gtacctttgg tgcatttatt ggcacaaaac atcagggcac 300
aacaactaca acaacttggt ctagcaaacc ttgctgccta ctctcagcaa cagcagtttc 360
ttccattcaa ccaactagct gcattgaact ctgcttctta tttggcacia caacaac 417

<210> 1980

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G4

<400> 1980

ctcgaagggt ccagcgagcg actgtgtcga gcaggagaga gcgcgatggg gaagatgcgg 60
cagctgatct gcctcgtggc cgccgtcgcc gccgcggcca tcctcctgac agcgtcggcc 120
aagaagtccg gcgacgtcac cgagcttcag atcggcgtca agtacaagcc tgagtcatgt 180
acgctgcaag cacacaaagg agacaaaatt aaggttcact atcgtgggac actcactgat 240
ggatcagttt tcgattctag ctatgacaga ggtgaccgt ttgaattcac tcttggaat 300
ggccaagtga taaaagggtg ggaccaagga ttgctcggt tgtgccgtgg tgaaaagagg 360
aagctaaaga tacctgcaaa gatgggttat ggtgagcgag 400

<210> 1981

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G5

<400> 1981

cccgtaacct tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc aaccctacag 60
gatccaacag gcaatcgag ctggcatctt acctttatca cccttggtcc tccaacaatc 120
atcagcccta ttacaacagt tacctttggt gcatttattg gcacaaaaca tcagggcaca 180
acaactacaa caacttgtgc tagcaaacct tgctgcctac tctcagcaac agcagtttct 240
tccattcaac caactaggtt cattgaactc tgcttcttat ttgcaacaac aacaactacc 300
attcagccag ctacctgctg cctaccccca gcaatttctt ccattcaacc aactagcagc 360
attgaactct cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg 420
tgtgagccct gctaccttct tgacacaacc a 451

<210> 1982

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G6

<400> 1982

cggacgcgtg ggctagcaac atagaaagca caatagtgtg ccaacaatgg cagccaaaat 60
atcttgcttc cttatgctcc ttggctcttc tgcaagtgtc gctaccgcaa ccattttccc 120

acaatgctca caagctccta tagcttcctt tcttccccca tacctctcac cagcgggtgtc 180
 ttcagtatgt gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagcagg 240
 catcttacct ttatcacctt tgttcctcca acaaccgtca gccctattac agcagttacc 300
 tttggtgcat ttgttggcac aaaacatcaa ggcacaacaa ctacaacaac ttgtgctagg 360
 aaaccttgct gcctactctc agcaacagca gtttcttcca ttcaaccaac tggctgcatt 420
 ggactctgct ggttatttca acaacaacta 450

<210> 1983
 <211> 450
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-039-Q1-K1-G7

<400> 1983
 gttcctttgt tcattgatac tgatcaagga actagtggga aatggggcct gtggattgtc 60
 cacaaaacttg tgcttactgg agtctatggg ctgattgttt tcatgcatca ttcaagatgg 120
 agagacaggc tgccctgcaaa accagcatac tacaactatg tatgtgtgat gttgctactg 180
 aatggcatat cactgttttg atgtttcctt attgcaagtg gagctggatt tggtttatgg 240
 ttatataatc tcacaaccgt atgctatcat tctctttacc ttccctcctt atatgtgact 300
 ttcttagcag acttcttcca ggaggaagac atgctcctag agaacgtcta ctattctgaa 360
 atgaaggatg ctgggttctt cgatgctgac tgggattaat ccgtggctac tgtgctgtat 420
 gacccatccc atatgaagta cgctgtattt 450

<210> 1984
 <211> 430
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-039-Q1-K1-G8

<400> 1984
 attttaaatt aatttttata caatatcata ttttggtaaa aggatcgggt gccatgttgt 60
 gctgttcttt ttgtgttctt tagcacgggg tagcattagt atttgacgcc cttttgtgtt 120
 gttggaaaga caaattagtt tgaatgggaa ttacatatct tgttttactg ttttaggggt 180

ccttctttgc tactgtgctc ctgtgggtcg gtactgcatt tatgtttctt ttttttttct 240
 ggtctgatgt aatttgtgcc actattctgt tggcaaagga gttcaggatt attttggccg 300
 tgtatagcaa tagcaactga caccttttgt gttcattgaa agtttttggg ctagagtgtg 360
 cagtgttgca agtcttaact gttgtcaaga aagtaatgtg ttcaacatga ttgtaaactg 420
 aatgcaattc 430

<210> 1985
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G9

<400> 1985

gcggttcaa caagcaatcg cagcaagcaa cataccttta tcgcccttgt tgtttcaaga 60
 atgaccagcc ctatctttgg tgcagtcatt ggtacaaacc atcagggcac aacagctgca 120
 gcaactcgtg ctacctgtga tcaaccaagt agctctggca aacctttctc cctactctca 180
 gcaacaacaa tttcttccat tcaaccaact gtctacactg aaccctgctg cttatttgca 240
 gcaacaacta ttaccattta gccagctagc tactgcctac tctcagcaac aacaacttct 300
 tccatttaac caattggccg cactgaaccc cgctgcttat ttgcagcagc aaatactact 360
 gccatttagc gagctagctg cagcaagtcg tgcttccttc ttgacacagc aacagttgct 420
 gcctttctac aagcagttt 439

<210> 1986
 <211> 251
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H1

<400> 1986

atttgacaac aaaggagatg atactgttta atttactaat gtgaaatgta gcctgtgggg 60
 gggtcacaaa cttttgctta ctggagtcta ttggctgatt gttttcatgc attattcaag 120
 atggagagac aggctttcta ctaattcatt atactacaac tatgtatgtg tgatgttgct 180
 actgaatgga atatcactgt ttggatagtt tcttattgca agtggaactt gattttgttt 240

attggtatat a

251

<210> 1987
<211> 233
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H11

<400> 1987

acaaactcat ccaacatatt ttgggtacgt atactcataa atctctctgc aaccgctact 60
acgccaaacca tttttccaca atgctcacia gctcctataa ctacccttct tcccccgatc 120
ctctcaccat cttcgtcttc catatgtcaa aaccaattc ttcaacccta tagcatccat 180
caaccaatcg caactcacat cttaccttta tcacccttgc tccttcaaca atc 233

<210> 1988
<211> 442
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H12

<400> 1988

atcgcaacag gcatcttacc attatcaccc ttgttcctcc aacaaccgtc agcggtagta 60
cagcagttac ctttgggtcca tttgggtggca caaaacatca gggcacaaca actacaacaa 120
cttgtgctag caaaccttgc tgcatactct cagcaacatc agtttcttcc attcaaccaa 180
ctggctgcat tgaactctgc tgcttatttg caacaacaat taccattcag ccagctagtt 240
gctgcctacc tccagcaatt tcttccattc aaccaactag cagcattgaa ctctgctgct 300
tatttacagc agcaacaact actaccattc agccagctag ctgatgtgag ccctgctgcc 360
ttcttgacac aacaacagtt gttgccgttc tacctgcacg ctatgcctaa cgctggcacc 420
ctcttacaac tgcaacaatt gc 442

<210> 1989
<211> 468
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H2

<400> 1989

ctacaacaac ttgtgctagc aaaccttgct gcctactctc agcaacagca gtttcttcca 60
ttcaaccaac tagctgcatt gaactctgct tcttatttgc aacaacaaca actaccattc 120
agccagctac ctgctgccta cccccagcaa tttcttccat tcaaccaact ggcagcattg 180
aactctcctg cttattttaca gcagcaacaa ctactaccat tcagccagct agctgggtgtg 240
agccctgcta ccttcttgat acaaccacag ttgttgccgt tctaccagca cgctgcgcct 300
aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact tgctttgaca 360
aaccagcag cgttctacca acaaccctac attgggtgtg ccctctttta gatttcttat 420
gaggtatagt tcaataataa aagtttttgg ctgaagttgg ggccttcc 468

<210> 1990

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H3

<400> 1990

caacaacaac aacagtttct gccatcactg agccacctag ccgtgggtgaa ccctgtcagc 60
tacttgcaac agcagctgct tgcacccaac ccacttgctc tggcgaacgt agctgcatac 120
cagcaacaac aacagctgca acagtttatg ccagtgtca gtcaactagc catgggtgaac 180
cctgccgtct acctacaact actttcatct agcccgctcg cgggtgggcaa tgcacctagc 240
tacctacaac aacagttgct gcaacaaatt gtaccagctc tgactcagct agctgtggca 300
aaccctgctg cctacttaca acagttgctt ccattcaacc aactggctgt gtcaaactct 360
gctgcgtacc tacaacagcg acaacagtta cttaatccat tggcagtggt taaccattg 420
gtc 423

<210> 1991

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-H4

<400> 1991

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaaga 60
 tgggtgctcc ttatgtcctt tgggtcttct gcaagtgtg ctacggcgac cttttcccg 120
 caatgtcgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat ttttcaacct tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcacctt gttcctccaa caatcatcag ccctattaca acagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aagttcattg 420
 aactctgctt c 431

<210> 1992

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-G11

<400> 1992

gcacaatagt gtaccaacaa tggcagctaa aatattttgc ctccttatgc tccttggtgt 60
 ttctgcaagt gctgctacgg cgaccatttt cccacaatgc tcacaagctc ctatagcttc 120
 ctttcttccc ccgtacctct caccaacggg gtcttcggta tgtgaaaacc caattcttca 180
 accctacagg atccaacagg caatcgcagc tggcatctta cttttatcac ctttgttcct 240
 ccaacaatca tcagccctat tacagcagtt acctttgggtg catttattgg cacaaaacat 300
 cagggcacaa caactacaac aacttggtgt agcaaacctt gctgcctact ctcagcaaca 360
 gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 420
 acaactacca ttcagccagc tatc 444

<210> 1993

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E8

<400> 1993

gttggtacac tattacagca gttacctttg gtgcatttgt tggcacaaaa catcaaggca 60

caacaactac aacaacttgt gctaggaaac cttgctgcct actctcagca acagcagttt 120
 cttccattca accaactggc tgcattgaac tctgctgctt atttgcaaca acaactacca 180
 ttcagtcagc tagctgctgc ctacccccag caattttcttc cattcaacca actggcagca 240
 ttgaactctg ctgcttattt acaacagcaa cagctaccac cattcagcca gctagctgat 300
 gtgagccctg ttgccttctt gacacaacaa cagttgttgc cgttctacct gcacgctgcg 360
 cctaacgctg gcaccctctt acaactgcaa caattgctgc cattcaacca acttgctttg 420
 acaaacccaa caacgttcta ccaacaacc 449

<210> 1994

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E9

<400> 1994

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt gcctgctgat 60
 gctccttggc atttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcacaagc 120
 toctatagct tcccttcttc cccgtacct ctaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 accottgttc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac acaactaca acaacttgtg ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgcaacaa caacaactac catt 444

<210> 1995

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F1

<400> 1995

cccacgcgtc cggcagccca aggtatagct tattcatctg aggctatggc ttacattct 60
 gtaaattggc atcagttacc tgcattctaca gcaactcaac aaccagtgcc ccagatgttt 120

tctcaacaat tccaagcacc tcagtatcca aactttttgc catatcggca tgtttttctca 180
ccacagtttg ggtctctaata ggttgttcca aactattcaa gcaaccatgc atttcctcag 240
ttgccacatg ccagcagcta tctggtaatg ccaaattggag cctcacaact agctgccaat 300
ggcatgaaat atggatcaaa ccatcagtat aagcaagtat ttcaaggagc ccctgctgga 360
tatggctacg gaaatcataa tgggtaccct aacgggtgta ttggcggcac aggtgctatt 420
gaagatatga atatgagtaa a 441

<210> 1996

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F10

<400> 1996

atcaaatacca tgcgtgcagc aatatctgaa acatttctctg agcctaataag gcggctggga 60
cagagacttt tgaaaatgat gcataccatt gcttctcata ctgccgagaa tagaatgact 120
ccatcagcag ttgctgcatg tatggccccg ctcttggtgc gtcccccttct tgctggtgaa 180
tgcgagatgg aagatgactt agacatgaat ggtgacagtgc ctgctcagct tattgccgct 240
gcaaattgctg ctaacagtgc tcaaggcatt gtaactactc tattagagga atacgagagt 300
atattcaatg atgagcactt taggtgctcc ttatcacctg attctcaaac aggagatagt 360
ggaagtgaag aatcaactga tgacgaaact gtggatacca agggtaattgg atttcatgat 420
gcggaaaatg atgtagatc 439

<210> 1997

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F11

<400> 1997

gcacaatagt gtaccaacaa tggcagccaa aatattttgc ctcttatgc tccttggtgt 60
ttctgcaagt gctgctacgg cgaccatttt ccacaatgc tcacaagctc ctatagcttc 120
ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc caattcttca 180

accctatagg atccaacagg caatcgcagc tggcatctta cctttatcac ccttggtcct 240
ccaacaatca tcagccctat tacagcagtt acctttggtg catttattgg cacaaaacat 300
cagggcacaa caactacaac aacttgtgct agcaaacctt gctgcctact ctcagcaaca 360
acagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 420
acaactacca ttcagccagc tatct 445

<210> 1998

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F12

<400> 1998

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gacgcggcct cttgctcccc tcaacccct taaagaagcg catagaagct tcggaaggtg 120
cccccccgcg gctcgaagga ggggagggga cgccgcggac aatgacggcg atggaagccg 180
ccgtcgacgc tatgctcgcc gccgcgagcc gtgccttcac gagcaccttt gccatcgcca 240
tccagatcca ggggtgcatg atctgttttag tccttgctct cgggtgggcg gctgcttcaa 300
ttgtcagaaa aggggttata aagaacatga ggcgcaacat tgtagatgga aatagttttg 360
catttctttg tgacaacata gatgagcttg agcactctgt tcaggagaat ttacctagag 420
tctctgtagt catgcctttg 440

<210> 1999

<211> 331

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F2

<400> 1999

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gctaactact gtcagcaaca acagtttctt acattcaacc aactaactat attgaactct 120
gctgcttatt tgcaacaaca actaccattt aatcagatag ctgctgacta ccccatcaa 180
ttactagcat tcaaacaact ggcagacact gaactctgct gcttatttac aacagccaca 240

tctaccacca tttaaccatc taactgatgt gagccctagt gccttcttga cacatcaaca 300
gttggttgcca gtctaccttc acgctttctcc t 331

<210> 2000

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F3

<400> 2000

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aggggtgttgcc tcgttgccct cgtctctctg gctctcgtg cgagcgccac ctccacgcat 120
acaagcggcg gctgcggctg ccagccaccg ccgcgggttc atctaccgcc gccggtgcat 180
ctgccacctc cggttcacct gccacctccg gtgcatctcc caccgccggt ccacctgccg 240
ccgcgggtcc acctgccacc gccggtccat gtgcgcgcgc cggttcatct gccgcgcga 300
ccatgccact acctactca accgccccgg cctcagcctc atccccagcc acacctatgc 360
ccgtgccaac agccgcattc aagcccgtgc cagctgcagg gaacctgcgg cgttggcagc 420
accccgatcc tgggccagtg cgt 443

<210> 2001

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F4

<400> 2001

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ttcaaccaac tagctgcatt gaactctgct tcttatttgc aacaacaaca actaccattc 120
agccagctac ctgctgccta ccccagcaa tttcttccat tcaaccaact ggcagcattg 180
aactctctg cttatttaca gcagcaacaa ctactaccat tcagccagct agctggtgtg 240
agccctgcta cttcttgat acaaccacag ttgttgccgt tctaccagca cgctgcgcct 300
aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact tgctttgaca 360
aaccagcag cgttctacca acaaccatc attggtggtg ccctctttta gatttcttat 420

gagttatagt tcaataataa agtttttt

448

<210> 2002

<211> 233

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F6

<400> 2002

ggagccgatg actagctacc tatctcgcta gtttactcat ttagcggcaa ttagtaacgg 60

aatgtcaccc atcaacatgc atggcagtg gagcaatgac ctgaacgaac cattgaaatg 120

gatcgggaata atatatgaag ctaacagatg attggaaaat aaggtcaaca acaaatccaa 180

gagcagcaac ataatacact acaacataat ccacaataac aacaacatca acc 233

<210> 2003

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F8

<400> 2003

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gcaatgctcg caagctccta tagcttcctt tcttcccccg tacctctcac cagcgggtgtc 120

ttcgggtatgt gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg 180

catcttacct ttatcacctt tgttcttca acaatcatca gccctattac atcagttacc 240

tttgggtgcat ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 300

aaaccttgct ggctactctc agcaacagca gtttcttcca ttcaaccaac tagctgcatt 360

gaactctgct ttttatttgc aacaacaaca actaccat 398

<210> 2004

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-F9

<400> 2004

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 caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgatgtct 180
 tcagtatgtg aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc 240
 atcttacctt tatcacctt gttcctccaa caatcatcag cctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact cgtgctagca 360
 aaccttgctg cctactctca gcaacagcag ttaccttgg tgcatttgtt ggcacaaaac 420
 atcagggcac aacaactaca ac 442

<210> 2005
 <211> 427
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-039-Q1-K1-G1
 <400> 2005

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 cggctgccag cctaacttct gctgcagcaa gttcggctac tgcggcacga cgcacgacta 180
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 catcaagaac caggccggga gcgggtgcga gggcaagaac ttctacaccc ggagcgcgtt 360
 cctgagcgcc gtcaacaagt acccgggctt cgcccatggc gggacggang tggagggcaa 420
 gcgcgag 427

<210> 2006
 <211> 445
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-039-Q1-K1-G10
 <400> 2006

tgagcattca gaaacacacc tagcgaagcg cactagcaac gacctaacia caatggctgc 60

caagacatta tccctccttg cgcttcttg cctttttgtg agtgcaacaa atgcgttcat 120
tattccacaa tgctcacttg ctccgagtgc cattattcca cagttcctcc ctccagttac 180
ttcaatgggc ttggaacacc cagctgtgca agcctatagg ctacaacaag cgcttgcggc 240
gagcgtctta gaacaaccaa ttgccaatt acaacaacaa tccttagcac atctaaccat 300
acaaaccatc gcaacgcagc agcaacaagc actgagccac ctagccgtgg tgaaccctat 360
cgcctacttg caacaacagc tgcttgcac caaccactt gctttggcaa acgtagctgc 420
ataccaacaa caacaacagt tgcaa 445

<210> 2007
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E7

<400> 2007

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ctggacgtgt acttcaattc ttgaaaaac caaaggggtgc tgatttgaat tctatgagag 120
ttgagaccaa cttcctgagc tatgctatag atgatgcaca gaaatatcca taccttgcac 180
caatgggcat ttatgtcttc aagaaagatg cacttttaga ctttctcaag tcaaaatata 240
ttcaattaca tgactttgga tctgaaatcc tccaagagc tgtactagat catagtgtgc 300
aggcatgcat ttttacgggc tattgggagg atgttggaac aatcaaatca ttctttgatg 360
caaacttggc cctcactgag cagccttcca agtttgattt ttatgatcca aaaacacctt 420
tcttcactgc accccgatgc 440

<210> 2008
<211> 432
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-B11

<400> 2008

gcggggagat ggtggcgccc ccgcgcgcgc tgcccgggggt ggcacagggc cgcggcgccg 60
acgtggcgct gtcgcgcgat ttcggccttg gcggcgcggt gcccggtgccg gtgtcggcag 120

acgcggcgca agcgctggag ggcgactgcg cggcggggccg cgtggagcta cgcctcgctg 180
tcatggggccg ggtcaagtac atgagcgggc cattcaggac cggatggcgc gggctatacc 240
tgcgctgcga tgtcaccgtc ggcctctggg tggacgccac cgcgggacgac gacggagccg 300
gggacgtgcc actgctcgag taccccaagt gctccgtcga cgcttgagtt gatccttgat 360
cggcgcaatg catgagcgct cagatgatca gattttcaga attctggtgg agaataagga 420
aattgggaaa aa 432

<210> 2009
<211> 447
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-022-Q1-K1-B12

<400> 2009

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atggccgccg cgggggcaga cggggagcgc aggatcgggg tggccatcga ctactcggag 120
agcgccaaga aggcgctgga ctggggccatc gacaacctgc tccaccacgg ggacaccctc 180
gtcgtcgtcc acgtcctgca ccacggcgcg gaggagacca agcacacgct ctggggccaag 240
tccggatccc cgctgatccc actctccgag ttccggggagc ccgaggtgat gcanggctac 300
ggcgtgcgcc ccgacgccga agtgctcgac gcgatcgaca cggcagcgcg ccagaagcag 360
ctgaagggtgg tggcgaagct gtactggggc gacgccaggg agaagctctg cgacgccgtc 420
taggatctca agatccgatt cctcgtc 447

<210> 2010
<211> 366
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-022-Q1-K1-B2

<400> 2010

cgttagcacg aaaagtcagc ggacgatctg gacggtggat tattacaggg gccgcaagtc 60
gacggttcag agattcggat gcatatctgg ccaacctgca cgtttctgaa gcgacaacca 120

cacggacggg tgcattcccga cgcccaaata catggcgagc tcgcccgcat ctcttccgcc 180
ggcgctacg ccggaattcg agatctctcg gcagtcgccg ctctttgcgg cgctgtccaa 240
gaaggtgata gatctcgatg aactgangat gctggcggct caaggagtcc cagacgcggc 300
ggcggtccga gcaactgtat ggaaactgct actgggctat cttgccaatg accgctcgct 360
gtggga 366

<210> 2011

<211> 403

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-B3

<400> 2011

gtacagagat actactagcg agcacgccat ggagcaaacc ggggcggcgg cgcgcggcgc 60
gcctggagcg gaagtgaag gtggcgacaa gacggcgagg aaggcgctga aggtggtggc 120
ggcgtggac gcgagcgagg agagcctgca cgcgctgtcg tgggcgctgg acaacgtcgt 180
gcggtgccac ccggacgcga cgctcgctgt cgttcacgcc cagcacgccg ncgaccactt 240
cgctacccc gtcgccgcgc acggcatcgt gtaogccccg tcttcggcgg tggagtccgt 300
gcgggcgggc caggaggaga gctccgcag ggtcgtggcg cgcgcgctgg acatctgcaa 360
ggagaggcag gtggacgcca cgggggccgt cgtggagggc gac 403

<210> 2012

<211> 303

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-B4

<400> 2012

atccaatcca gatcagcaaa gcggcagtcg gtagagagga tcgtcgaaca gaacagcatg 60
aagatggtca tcgttctcgt cgtgtgcctg gctctgtcag ctgccagcgc ctctgcaatg 120
cagatgccct gccctgcgc ggggctgcag ggcttgtagc gcgctggcgc cggcctgacg 180
acgatgatgg gcgccggcgg gctgtacccc tacgcggagt acctgaggca gccgcagtcg 240

aacctgttgg ctgctgtgcc ctactacgcc gtgtgtgggc tgtcgagcgc catgttccag 300
tcg 303

<210> 2013

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-B5

<400> 2013

gcgcggggcaa gactattacc ttggttgatt agagctctga caccattgac aatgtgaagg 60
gcaagatcca ggacaaggag ggcattcccc cagaccagca gcgtctgac tttgcgggca 120
agcagctgga ggatggccgc actctcgagg actacaacat ccagaaggag agcacccttc 180
accttgttct ccgactcaag ggtggtatgc agatctttgt gaagaccctg actggaaaaa 240
ccataaccct ggaggttgag agctcggaca ccatcgacaa tgtgaaggcg aagatccagg 300
acaaggaggg catccacacg gaccagcagc gtctgatctt cgccggcaaa cagctggaag 360
atggccgcac cctaacagac tacaacattc ataaagagag cacccttcac cttgtgct 418

<210> 2014

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-B6

<400> 2014

gaaggccgag aggagtgaca tcccagtcac cgacaagaaa aaagtacctt gtccccgccg 60
acctcacagt gggacagttt gtgtacgtgg tgcggaagcg catcaagctc agcgccgaga 120
aggcgatctt catcttcgtg aagaacaccc tcccaccaac agctgccttg atgtctgcca 180
tctacgagga gaacaaggac gaggacgggt tcctctacat gacctacagc ggcgagaaca 240
cctttgggct gctatgagtg gcgccgcgcc gccgtggatc gacgtcggac aatgcccttc 300
cttctgtaaa tacttaaaaa aaaaataggc gtctcaagaa tccgtgtaca taataatctg 360
gcatgtcttg catcaaaagc aactcgttgc gtccactgtc tgttgaaact attgaagcgt 420
actanacatt taagc 435

<210> 2015
 <211> 454
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-B7

 <400> 2015

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atTTTgagca tTcagaaaca caccaagcga agcacattag catcaaccta acaacaatgg   60
ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt  120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagtTc ctcccaccag  180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg  240
cgggcagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa  300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag  360
ccatggtgaa ccctgccgcc tacttgcaac agcagttgct tgcacaaac ccacttgctc  420
tggcaaacgt agttgcaaac cagccacaac aaca                                454
  
```

<210> 2016
 <211> 298
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-B8

 <400> 2016

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acggagacca actagcaaca tagaaagcac aatagcgtac caacaatggc agccaaaaga   60
tcttgctgcc ttatgctcct gggcctctct gcaagtgatg ctaccgcaac gattattcga  120
caatgctcac atgctcatat agcttctctt attacccaat acctctcacc agcagcgtct  180
acaatgtctg aaacctcaat tgctcaacgc tacaggatcc agcatgcaat agcaacaggc  240
atcttaccag catcaccctt gctcgtccaa catccgacag ccctattaca gcacttac    298
  
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<210> 2017
 <211> 435
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-022-Q1-K1-B9

<400> 2017

gaccaacaag caacatagaa agtggaatcc agtagcaaca atagagcaac aatggcgacc 60
aagatacttt ccttccttat gtccttgct ctttctgcat gtgttgctaa cgcgacaatt 120
ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatg 180
atagcttcag tatgtgaaaa ccagctctt caaccctata ggctccaaca agcaatcgca 240
gcaagcaaca tacctttatc acccttggtt caacaatcgc cagccctatc ttgggtgcag 300
tcattggtac aaaccatcaa ggacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tatcagcaac aacaatttct ttcatcgaac 420
caactatctc cactg 435

<210> 2018

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-C1

<400> 2018

gcacatagaa gcgcaatatg tactatctat ggcagccaaa atattttgcc tccttatgct 60
ccttggtctt tctgcaagtg ctgctacngc gaccattttc ccgcaatgct cgcaagctcc 120
tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat gtgaaaaccc 180
aattcttcaa ccctacagga tccaacaggc aatcgcagct ggcatcttac ctttatcacc 240
cttggtcctt caacaatcat cagccctatt acaacagtta cctttggtgc atttattggc 300
acaaaacatc agggcacaac aactacaaca acttggtgcta gcaaaccttg ctgcctactc 360
tcagcaacag cagtttcttc cattcaacca actaggttca ttgaactctg cttcttattt 420
gcaacaacaa caacta 436

<210> 2019

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C10

<400> 2019

gcaacatata aagcacaata gtgtaccaac aatggcagct caaatatattt gcctccttat 60

gctccttggt ctttctgcaa gtgctgtac ggcgaccatt ttccacact gtcacaagc 120

tcctatagct tccctgcttg cacggtacct ttcaccaacg gtgtcttcgg tatgtgaaaa 180

cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240

acccttggtt cttcaacaat catcagccct attacagcag ttacctatgg tgcatatata 300

ggcacataac atcagggcac aacaactacc acaacttggt ctagcaaacc ttgctgccta 360

ctctgagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420

tatgcaac 428

<210> 2020

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C12

<400> 2020

agaagtggaa tccagtagca acaatagagc aacaatggcg accaagatac tttccctgct 60

tatgtcctt gctctttctg catgtgttgc taacgcgaca attttccctc aatgttcaca 120

agctcctata gcttcccttc ttcccccata ccttccatca atgatatgctt cagtatgtga 180

aaaccagct cttcaaccct ataggctcca acaagcaatc gcagcaagca acataccttt 240

atcacccctg tttcaacaat cgccagccct atctttggtg cagtcattgg taaaaacct 300

caaagcacag cagctgcaac aactcgtgct acctgtgatc aaccaaatac ctctggcaaa 360

cctttctccc tactatcagc aacaacaatt tctttcattc aaccactat ctacactgaa 420

cctgtgtgct tatttgcagc aaaa 445

<210> 2021

<211> 427

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-C3

<400> 2021

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 tggctcgatc gtagcggcta cgctggcgca tgagttgtct tggacccgtg actgcttgga 120
 ggacccccgc tgccgtgcgg ccgactcccg gcgcccgtgt cccatcgctc gtgcgggcat 180
 cccgtgcctg ctgcgttgag aagtgccttc gtgctgctac ccgtcccacg ggaagccgtg 240
 ctcgatacac gttgccttcg tcgagctcac cccccggggt gcggctcgtc ggctcgagag 300
 cgccccgggc gtttgcttcg tgccgncgtc agcctatggc cggcggcacc gaggacacct 360
 cgctggcgct tttggtctcg gatgtggctc acgctgaagg ccggagacgc gttggcgctca 420
 cgcgccc 427

<210> 2022

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-C4

<400> 2022

ccctacagga tccaacaggc aatcgcttca tgcattctac cattatcacc cttgttcgct 60
 ccaacaaccg tcagccctat tacagcagtt acctttggtc catttggtgg cacaaaacat 120
 cagggcacaa caactacaac aacttgtgct agcaaacctt gctgcatact ctcagcaaca 180
 tcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaaca 240
 attaccattc agccagctag ttgctgccta cccccagcaa tttcttccat tcaaccaact 300
 agcagcattg aactctgctg cttattttaca gcagcaacaa ctactaccat tcagccagct 360
 agctgatgtg agccctgctg ccttttttgac acaacaacag ttgttgccgt tctacctgca 420
 cgctatgcct aacgctggca cc 442

<210> 2023

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-B10

<400> 2023

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ccttatgctc cttggtcttt ctgcaagtgt tgctaccgca accattttcc cacaatgctc 120
acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtg cttcaatgtg 180
tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcattctacc 240
attatcacc ttgttctctc aacaaccgtc agccctatta cagcagttac ctttgggtcca 300
tttgggtggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgcatactct caacaacatc agtttc 386

<210> 2024

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H5

<400> 2024

catcaagcaa catacaaagt ggaatccagt atcaacaaca gagcaacaat ggcgaccaag 60
atatgtcca tccttatgct ctttgccttt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctac tatagcttat cttattcaca cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tgcaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgtttggtt caacaatcga cagccctata tgcggtgcac 300
tcattgggtc aaaccatcat ggcacagtat ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagcta tggcaaacct ttctacctac tctcagcaac aaacaatttc ttccat 416

<210> 2025

<211> 451

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-H6

<400> 2025

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gctaccaaga tattagccct ctttgcgctt cttgcccttt ttgtgagcgc aacaaatgcg 120
ttcattattc cacaatgctc acttgctcct agtgccatta ttccacagtt cctcccacca 180

gttacttcaa tgggcttcga acacctagct gtgcaagcca acatgcaaca acaagcgctt 240
gcggcgagcg tcttacaaca accaattgcc caattgcaac aacaatcctt gccacatcta 300
acaatacaag ccatacacaac gcaacagcaa caacagttcc taccagcact gagccaccta 360
gccatggtga accctgccgn ctacttgcaa gagcagctgc ttgcatccaa cccacttgct 420
ctggcgaacg tagttgcaaa ccagcaacaa c 451

<210> 2026
<211> 437
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H8

<400> 2026

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caccaaggct gccggccagg acgccacca ggaaagccta gcagagaatc ctgccaagga 120
cgccgcagat ccgggcagca tggagtccga gtgggttctt ctcggaatc cggacatcgt 180
cccggccgat gtggccgccc ccgccgccgc ggggcaccac cacctcaact tctcgccgct 240
gccgatgata cctatctggg tgcagatggt tctcgggggc gtgggtttaca cggctgtgcc 300
gttctacaag aggggtgctga aggtcgaagg tgaaacgttg gccaatgtag aaactgcagt 360
ggaggtcgtg gagcatgtcg ccgaggtgac ggagaagttg gctgcagatg cggccagttc 420
cctgccagag aacggat 437

<210> 2027
<211> 437
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H9

<400> 2027

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ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcgggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcattctacc 240

tttatcaccc ttgttcctcc aacaatcatc agccctatta caacagttac ctttggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat tgaactctgc 420
 ttcttatttg caacaac 437

<210> 2028

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-A1

<400> 2028

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 cttacaccag gcacaacttc tttcatctag cccgctcgct atgggcaatg cacctacata 120
 cctgcaacaa cagttgttgc aacaacagtt gctgcaacaa attgtaccag ctcttactca 180
 gctagctgtg gcaaaccctg ctgcctactt gcaacaacta cttccattca accaactgac 240
 tgtgtcgaac tctgctgcgt acctacaaca gcgacaacag ttacttaatc cactagcggc 300
 ggcttaaccc atggctcgctg cctttctaca gcagcaacaa ttgctgccat acaaccagtt 360
 ctctttgatg aaccctgcct tgctgtggca gcaaccatc gntgggtggtg ccatctttta 420
 gattacatat gaga 434

<210> 2029

<211> 113

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A10

<400> 2029

tccgggtcga ccccgctcc gcggacgct gggttttggg cagcgctgtt ctggttccta 60
 gtatggtgag aattggctgc accttttgct tcgaataaaa atgcctgctc gtt 113

<210> 2030

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A11

<400> 2030

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cacctccggt tcacctgcca cctccggtgc atctcccacc gccggtccac ctgccgccgc 120
cgggtccacct gccaccgcg gtccatgtgc cgcgcgcggt tcctctgccg ccgccaccat 180
gccactaccc tactcaaccg ccccggcctc agcctcatcc ccagccacac ccatgcccgt 240
gccaacagcc gcatccaagc ccgtgccagc tgcagggaac ctgcggcggtt ggagacaccc 300
cgatcctggg ccagtgcgtc gagtttctga ggcatcagtg cagcccgacg gcgacgcctt 360
actgctcgcc tcagtgccag tcgttgccgc agcagt 396

<210> 2031

<211> 445

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-022-Q1-K1-A12

<400> 2031

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cggacggctg cagggtttgg acattgggaa ggggcctctg gttgtgaagt tagagagcag 120
ctcgatctct gcaagtgaaa gcagcagcac cttctaacga ggctacaag tgaaaacca 180
ccgtttcagt aggttccatt gttcatagta gcctgacatc cttgtgctgc ttcctgctct 240
gtaagcccat ttgttattta attcattcat ttagttgaaa ttatacgctg tcgcactggc 300
tgatcaatca tggtgtagaa tggccagga acccttcaat tatgtttgtt ttgggctcgt 360
ttcctgggtc tgtgactgg atcatcaagg catttgggtt ttggagtga attctcta 420
ggtactttnt gtgtgtttta actat 445

<210> 2032

<211> 178

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A2

<400> 2032

ctcgacgtcg acagcttcga cgaggccgtc gccaaagcacc cttcatggt cgtcgagttc 60
tacgccccct ggtgtgggca ctgcaagaaa cttgcttcag agtatgagaa tgcggccaaa 120
gcacttagca agcatgaccc accgattggt ctcgctaagg ttgatgctaa cgaggaga 178

<210> 2033

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A4

<400> 2033

agcaaactt gctgcctatt ttaagatcca ccagttctgg cttttaaacc aactagcgga 60
ttggaactct gctgctaatt ggcagcacca ccaactacta ccattcagcc agctagctgc 120
tgcctacccc gggcaatttc ttctattcaa ccaactggca gcattgaact ctcatgctta 180
tgtacaacaa ccaacaacta ctaccattca gccagctagc tgctgtgagc cctgcttgct 240
tcttgacaca gcaacatttg ttgccgttct acctgcacac tgcgcctaac gttggcacc 300
tcttacaact gcaacaattg ctgccattcg accaacttgc tttgacaaac ccagcagtg 360
tctaccaaca acccatcatt ggtggtgccc tcttttagat tgcttatgag ttatagttca 420
ataataaagt tttttt 436

<210> 2034

<211> 246

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A5

<400> 2034

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tctacatata gtactacctc agactcacct agctgtggcg acacctgcat cctactaccc 120
acaactacta ccattcaacc aacagcatgc aaccaactct gctatatacc tacaacaacg 180
acaacagcta cttcatccac aatcagtatt ataacaaatg ctctctgtca actacagcac 240
aacaataa 246

<210> 2035

<211> 465

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A7

<400> 2035

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aatggagcca caatgacgac caagggatat tctctactta tgctccttgc tctttctaca 120
tgtgttgcta acgcgacaat tttccctcaa tgctcacaag ctctatagc ttcccttctt 180
ccccataacc ttccatcaat tatagcttca gtatgtgaaa acccagctct tcaaccatat 240
aggcttcaac aagcaatcgc agcaagcaac atacctttat cgcccttggt gtttcaacaa 300
tcaccagccc tatcttttgg gcagtcattg gtacaaacca tcagggcaca acagctgcag 360
caactcgtgc tacctgtgat caaccaagta gctctggcaa acctttctcc ctactctcag 420
caacaacaat ttcttccatt caaccaactg tctacactga accct 465

<210> 2036

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-A9

<400> 2036

cagccattag ctttatctac tccagagcgc agaagaacct gatcgacacc atgaggggtg 60
tgctcgttgc cctcgtcttc ctggctctcg ctgcgagcgc cacctccacg catacaagcg 120
gcggtgcgg ctgccagcca ccgcccggg ttcacttacc gccgccggtg catctgccac 180
ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgcccggg 240
tccacctgcc accgccggtc catgtgccgc cgccggttca tctgccgccg ccaccatgcc 300
actacctac tcaaccgcc ccgctcagc ctcatcccca gccacacca tgcccgtgcc 360
aacagccgca tccaagccc tgccagctgc agggaacctg cgccgttggc 410

<210> 2037

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-022-Q1-K1-B1

<400> 2037

gttaggctag ggttcgacca gctagcgtaa aatggggggc ttcaggttcc atcagtagca 60
gggggtgggg cgcgcgctgc cgacgcccgg cgatgagcac cccaagatct accgcatgaa 120
gctctggggc accaacgagg tccgcgccaa gagcaagttc tggtagttct tgagggaagt 180
gaagaagggt aagaagagca acggccaggt cctggccatc aacgagatct ttgagcgtaa 240
cccgacgaca atcaagaact acggcatctg gctgcgctac cagagcagaa ccggctacca 300
caacatgtac aaggagtacc gcgacacaac cctgaatggc gctgtggagc agatgtacaa 360
cgagatggcc tctcgccaac gcgtgaggtc cccctgcac cagatcatca agactgcgac 420
ggtgcact 428

<210> 2038

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H4

<400> 2038

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gctccgtggg ctttctgcaa gtgctgtac cgcaaccatt ttcccacaat gtcacaagc 120
tctatagct tctttcttc ccccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatgt tacctttatc 240
acccttgatc ctacaacaac cgtgagccct attacagcag ctacctttgg tgcatttgct 300
gtcacaaaac atcaaggcac aacaactaca acaacttggt ct 342

<210> 2039

<211> 473

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F8

<400> 2039

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accaacaatg gcagccaaaa tattttgcct ccttatgctc cttggtcttt ctgcaagtgc 120
tgctacggcg accatitttc cgcaatgctc gcaagctcct atagcttccc ttcttcccc 180
gtacctctca ccagcgggtg cttcgggtatg tgaaaaccca attcttcaac cctacaggat 240
ccaacaggca atcacagctg gcattcttacc tttatcaccc ttgttcctcc aacaatcatc 300
agccctatta catcagttac ctttgggtgca tttattggca caaaacatca gggcacaaca 360
actacaacaa cttgtgctag caaaccttgc tgctactct cagcaacagc agtttcttcc 420
attcaaccaa ctagctgcat tgaactctgc ttcttatttg caacaacaac aac 473

<210> 2040

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F9

<400> 2040

gtattttgca gcaaaaggca gatgagggtg agttaaatac tcaaattgct tccttggagt 60
ctagggtgag tatcagtgag ggtagggtgt cggcaacacg tgaacaggct gattctgctc 120
aagaggaagc atccgaatgg aaacgcaaat atgacgttgc tgtagtgag gccaaaacag 180
ctctgcagag agcggcggtg gcacaggaac acacaaataa gaaagtgcaa gagagggaag 240
atgctttgag ggtagagctt gctaaccgac tatctgagaa ggaagagaaa attgcaagat 300
tacatgcaaa acttagtcaa atggaaattc atgtacaag ttgatctcg aggcttgagg 360
ccactgaagc gaagtcgaag agccatgagt ctgattcggt ggctttgatg gaggagatca 420
gattactg 428

<210> 2041

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G1

<400> 2041

attcaaaaac acaccaagcg aagcgcacta gcaacgacct aacaccaatg gctaccaaga 60

tattagccct ccttgcgctt cttgcccttt tagtgagcgc aacaaatgcg ttcattattc 120
cacagtgtc acttgctcct agtgccagta ttccacagtt cctcccacca gttacttcaa 180
tgggcttcga acatccagcc gtgcaagcct acagggtaca actagcgctt gcggcgagcg 240
ccttacaaca accaattgcc caattgcaac aacaatcctt ggcacatcta accctacaaa 300
ccattgcaac gcaacaacaa caacaacagt ttctgcatc actgagccaa ctagccgtgg 360
tgaaccctgt cacctacttg caacagcagc tgcttgcatc caaccactt gctctggcga 420
acgtagctgc ataccac 437

<210> 2042

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G11

<400> 2042

tcagaaacac acctagcgaa gcgcactagc aacgacctaa caacaatggc ttccaagaca 60
ttatccctcc ttgcgcttct tgcccttttt gtgagtgcga caaatgcgtt cattattcca 120
caatgctcac ttgctccgag tgccattatt ccacagttcc tccctccagt tacttcaatg 180
ggcttcgaac acccagctgt gcaagcctat aggctacaac aagcgcttgc ggcgagcgtc 240
ttagaacaac caattgccca attacaacaa caatccttgg cacatctaac catacaaacc 300
atcgcaacgc agcagcaaca agcactgagc cacctagcgc tgggtgaacc tatcgcttac 360
ttgcaacaac agctgcttgc atccaacca cttgctttgg caaacgtagc tgcatac 417

<210> 2043

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G12

<400> 2043

caacaagcaa catagaaagt ggaatacagt agcaaaaata gagcaacaat ggcggccaag 60
atattttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccattttt 120
cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180

gcttttagtat gtgaaaaccc agcccttcaa ccctacagga tccagcaagc aatcgcaaca 240
agcaacttac ctttatcaca cctgttcttt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcagaacag ttgcagcaac tcgtgctacc agtgatcagc 360
caagtagctc tggcaaacct ttccccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta tactg 435

<210> 2044

<211> 310

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G2

<400> 2044

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcct 60
gcttatgctc cttggtcctt tttgcagggtg ctgttacggg aacaattttc cgcattgct 120
cgcaggctct aatagcttcc cttcttcccc cgtaccttta accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagtt ggcattctac 240
ctttatcacc ctggttcctc caacaatcat cagccctatt acatcagtta ccttgggcgc 300
atatattggc 310

<210> 2045

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G3

<400> 2045

ctccgctgac cccgcatctt ccctacagag ctgtgtttct ccaagttcgc tgctggccat 60
atcgacgtcg tcattctcga tccagacgag tgtgtgtgct atctccaagg gtcttcgaca 120
gatttagatt gcattgtacc aaggataaga aaaatggata agcgaactag gaatagaaga 180
gaagaggagg acgaggagtt aatgctcttt cttttccctg ctctttatct aattactaat 240
ggagggagag agaaaagagc aaggcatgct tctattctac ctggcaagga gagacttaaa 300
gagattcttg aaaggcatga gaagaactgt cttgtcgcat tccgtatgga gcctcgtata 360

ttcaaagata tagcaacatt tcttagagaa gaacacatac tatgtgacac aaggggtg 418

<210> 2046

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G4

<400> 2046

ctagcaacat agaaagcaca atagtgtacc aacattggca gccaaaatat tttgcctccg 60
tatgtctcctt ggtctttctg caagtgtgtc tacggcgacc attttcccgc aatgtctgca 120
agctcctata gcttcccttc tteccccgta cctctcacca gcggtgtctt cggtatgtga 180
aaaccacaatt cttcaaccct acaggatcca acatgcagtc acagctggca tcttaccttt 240
atgacccttg tttctgcaac aatcatcagc cctatctcat cagttacctt tgttgcatg 300
atcggcacat accatcacgg cacatcaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
ttatttgcaa caacaacaac t 441

<210> 2047

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-G5

<400> 2047

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcct 60
ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaaccca attcttcaac cctataggat ccaacaggca atcgcagctg gcatcttacc 240
tttatcacc cttgttctcc aacaatcatc agccctatta cagcagttac ctttggtgca 300
tttattggca caaaacatca aggcacaaca actacaacaa ctngtgctag caaaccttgc 360
tgccactct cagcaacaac agtttcttcc attcaaccaa ctagctgcat tgaactct 418

<210> 2048
<211> 413
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-G7

<400> 2048

cgtaaattat ctaccaaaaa aatttcaaga ttttttattg attgtctccg ctctctgtat 60
aatatttttt tttgatttgg ctaactgatg ttattgttta caccatgcaa tatgtcttgg 120
tacaacacgg ctaatgaagt gagcgattag aagagagttc acaacgactg actgaacgaa 180
caaagattat aaaatgacat aattccacca taaagagacc aaataagaga aagtttgtga 240
gctcaagttt ctaaaataag tcacatgaac tcaaacttat aaaaagatag atcaaaaatat 300
gaagtgattg ctaaagtcac gcatcaataa aaactggatg cgctctttgt agcaattatt 360
aacattttaa accaacaat aactttttat ttactgtta gtgtgataaa tca 413

<210> 2049
<211> 351
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-021-Q1-K1-G8

<400> 2049

catttaacca attggccgca ctgaaccctg ctgcttattt gcagcagcaa atactactgc 60
catttagcga gctagctgca gcaagtcgtg cttccttctt gacacagcaa cagttgctgc 120
ctttctacaa gcagtttgcg gctaaccctg caaccctctt acaactacaa caattgttgc 180
cctttgtcca acttgctttg acaaaccag cagcctncta ccaacaacac atcattgggtg 240
gtgccctctt ttagattgat tattagttgt aattcaataa taaaagtttt tggatgatgt 300
atgttggcaa ccagaaataa gaagttacat tttcagattc taaaaataa a 351

<210> 2050
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H1

<400> 2050

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcct 60
ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
tttatcacc ttgttctcc aacaatcatc agccctatta catcagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgctactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
ttcttatttg caac 434

<210> 2051

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H10

<400> 2051

aacaagcaac atagaaagtg gaatccagta gcaacaatag agcaacaatg gcgaccaaga 60
tactttccct ccttatgctc cttgctcttt ctgcatgtgt tgctaacgcg acaattttcc 120
ctcaatgctc acaagctcct atagcttccc ttcttcccc ataccttcca tcaatgatag 180
cttcagtatg tgaaaaccca gctcttcaac cctataggct ccaacaagca atcgagcaa 240
gcaacatacc tttatcacc ttgtttcaac aatcgccagc cctatctttg gtgcagtcac 300
tggtacaaac catcaaggca cagcagctgc agcaactcgt gctacctgtg atcaaccaag 360
tagctctggc aaacctttct ccctactatc agcaacaaca atttcttcca ttcaaccaac 420
tatctacact gaaccct 437

<210> 2052

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H11

<400> 2052

cagaaacaca cctagcgaag cgcactagca acgacctaac aacaatggct accaagatat 60
tattccctctt tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
aatgctcact tgctcctagt gccattattc cacagttcct ccctccagtt acttcaatgg 180
gcttcgaaca cccagctgtg caagcctaca ggctacaaca agcgcttgcg gcgagcgtct 240
tacaacaacc aattgcccaa ttacaacaac aatccttggc acatctaacc atacaaacca 300
tcgcaacgca acagcaacaa caatttctac cagcactgag ccaactagct gtggtgaacc 360
ctgtcgcta cttgcaacag cagttgcttg catccaaccc acttgctctg gcaaacaatag 420
ttgcatacca acaacaacaa ca 442

<210> 2053

<211> 356

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-H3

<400> 2053

gtccttgctg gcggcaagca ccttcgtccc ggagacatct gccgctgcag catagaccac 60
catgtcctcg ctccggcagca ccgatgttga tgatggcaac gaggaggagg acggctccgc 120
gagcaccccc gagatctacc gctgccactc ccacgcagtt gcgtgtagcc tctccatgtg 180
atttcccaaa tgtttccctt cctctgtagc ctctccgacg gcgccgccgc cgttcttctt 240
cgcccgctcg cgacatttta agaacgcctg aggctgttca accacttcat cgtctttttg 300
actgcctcac attgaaagga actttgcagc ggactgttat atgatctaata gaagaa 356

<210> 2054

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F7

<400> 2054

cgaagatcac attctcaaga gaagctgtgt cgagcgtgtg ctcttttgtg tcagagcacg 60
tcccttccat agacttggaa tcctgggatg aaagtgccat gaccgaaggc acacccccag 120
ccaaagcaca gctgtttttg cccgagggtg aaagtatatc ttccgtgaag tttgcgagct 180

tgggaaaccc cagtggaacc tgtagatcat accaaatggg gcgctgccac cccccgaact 240
 ccttatctgt tgctgagaag gcttgtctga acaccaacag ctgtacagtc tccctgacag 300
 acgagagctt tgggaaggat ctatgccctg gagtcaccaa aacactcgac atcgaagcgg 360
 ac 362

<210> 2055
 <211> 166
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D12

<400> 2055

tgagcattca tatacacacc aagttatddd cactatcaac aacctaaca caatggctgc 60
 caatatatta tctctgcttg ctcttctttd gcttatcgcg agctcaataa atgcgctcat 120
 tatttcacaa tctacactaa ctcttagttt cattattcca tatttc 166

<210> 2056
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D3

<400> 2056

gcagcaagca acataccttd atcgcccttg ttgtttcaac aatcgccagc cctatctggg 60
 gtgcagtcac tggtaaaaac catcagggca caacagctgc agcaactcgt gctacctctg 120
 atcaaccaag tagctctggc aaaccttdtct cctactctc agcaacaaca atttcttcca 180
 ttcaaccaac tgtctacact gaaccctgct gcttatttgc agcaacaact attaccattt 240
 agccagctag ctactgccta ctctcagcaa caacaacttc ttccatttaa ccaattggcc 300
 gcaactgaacc ccgctgctta ttgacagcag caaatactac taccatttag ccagctagct 360
 gcatcaaacc gagcttactt cttgacacag caacagttgc tgcctttdta ccag 414

<210> 2057
 <211> 239
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D4

<400> 2057

ctgcgcttgt gcttgcacgc attgcgcctt gtctctcaca catcagcagc ggagcagatc 60
gagccatggc gcttctctcg ctctctgcct tcctgctggc aacggctgca gccccggcgc 120
cagtcgccgc cgtgggcaac gcaacatacg acggcagcaa gacggacgcg tccccggcgc 180
tcctatgcaa cggcgagggg tgtgagccac cggcgagcc gctgccgatc tacgggtac 239

<210> 2058

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D5

<400> 2058

cccacgcgtc cgcacaaatg cattgacaac attgtaatct tgagtggcga tcagctttat 60
cggatgaatt acatggaact tgtgcagaaa catgtcgagg acgatgctga tatcactata 120
tcatgtgctc ctgttgatga gagccgagct tctaaaaatg ggctagtga gattgatcat 180
actggacgtg tacttcaatt ctttgaaaaa ccaaaggggtg ctgatttgaa ttctatgaga 240
gttgagacca acttcctgag ctatgctata gatgatgcac agaaatatcc ataccttgca 300
tcaatgggca tttatgtctt caagaaagat gcacttttag accttctcaa gtcaaaatat 360
attcaattac atgactttgg atctgaaatc ctccaagag ctgtactaga tcatagtgtg 420
caggcatgca tttttacggg ctat 444

<210> 2059

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-D6

<400> 2059

gtcacttgc tccaagttcc attattacac agttcctccc accagttact tcaatgggct 60
tcgaacaccc agctgtgcaa gcctataggc tacaacaagc aattgcggcg agcgtcttac 120
aacaaccaat ttcccagttg caacaacaat ccttggcaca tctaacaata caaaccatcg 180

caacgcaaca gcaacaacaa ttccctaccag cactgagcca cctagccatg gtgaaccctg 240
 ccgcctactt gcaacagcag ttgcttgcat caaaccact tgctctggca aacgtagttg 300
 caaaccagcc acaacaacag ctgcaacagt ttctgccagc gctcagtcaa ctagccatgg 360
 tgaaccctgc cgnctaccta caacagcaac aactgctttc atctagcccg ctcgctgtgg 420
 ccaatgcacc tacat 435

<210> 2060

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D7

<400> 2060

cagaaacaca ccaagcgaag cacattatca acaacctaac aacaatggct accaagatgt 60
 tatccctcct tgcgcttctt gcgctttttg cgagcgcaac aaatgcgttc attattccac 120
 aatgctcact tgctccaagt tccattatta cacagttcct cccaccagtt acttcaatgg 180
 gcttcgaaca cccagctgtg caagcctata ggctacaaca agcaattgcg gcgagcgtct 240
 tacaacaacc aatttcccag ttgcaacaac aatccttggc acatctaaca atacaaacca 300
 tcgcaacgca acagcaacaa caattcctac cagcactgag ccacctagcc atgggtgaacc 360
 ctgcgccta cttgcaacag cagttgcttg catcaaacc acttgctctg gcaaacgtag 420
 ttgcaaacca gccacaacaa ca 442

<210> 2061

<211> 407

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-D8

<400> 2061

tgcacactga accttctact caagaacctg aggctcaatc cattgggtgg ggacaaggtg 60
 ttgaccatgc tggcgagtca gctgcgcaag ggaacggtca tggatggcaa tggctcaaag 120
 atcctcggtt ggactacctt ggttacagag gaatttttcc agctgacacg ataccacccc 180

tagttgagtc tgacaaagaa gcagatgaac gccattatca actttggcgg atagaaaatg 240
gagtcgcaga aggttcgact gagatcccaa aaggcgaagc aatcccgtg gagtacaatc 300
ttgctggctt gaacgccatt tcgttcgaga agggctgcta catcgggcag gagcttatcg 360
ctcggacgca ccatcgcggt gtcatncgga agcgccta at gccaatg 407

<210> 2062

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D9

<400> 2062

gagaccaact agcaacatag aaagcacaat agtgtacca caatggcagc caaagtaggt 60
tgcttcctta tgctccttgg tctttctgca agtgttgcta ccgcaaccat tttcccacaa 120
tgctcacaag ctctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca 180
atgtgtgaaa cccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc 240
ttaccattat cacccttgtt cctccaacaa ccgtcagccc tattacagca gttacctttg 300
gtccatttgg tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgcat actctcagca acatcagttt cttccattca accaactggc tgcattgaac 420
tctgctgctt atttgcaaca ac 442

<210> 2063

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E1

<400> 2063

aacaattcct accagcactg agccacctag ccatggtgaa ccctgccgcc tacttgcaac 60
agcagttgct tgcacaaac ccacttgctc tggcaaactg agttgcaaac cagccacaaac 120
aacagctgca acagtttctg ccagcgtca gtcaactagc catggtgaac cctgccgcct 180
acctacaaca gcaacaactg ctttcatcta gcccgtcgc tgtggccaat gcacctacat 240
acctgcaaca acaattgttg caacagattg taccagctct gactcagcta gttgtggcaa 300

accctgctgc ctacttgcaa cagctgcttc cattcaacca actgactatg tcgaactctg 360
 ctgcgtagctt acaacagcga caacagttac ttaatccact agcagtggct aacccattgg 420
 tcgctgcctt cctacagcag caacaatt 448

<210> 2064

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E10

<400> 2064

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattgtgcgt 60
 gcttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcgggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcattctacc 240
 tttatcacc ttgttcctcc aacaatcctc agccctatta catcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgctactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caacaacaac a 441

<210> 2065

<211> 466

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E11

<400> 2065

tcggaacgga attcccgacc caagccacgc gtgcaacgca ctgacactac gtaccaacaa 60
 tggctaccaa gatattaggc ctcttaggc tgcttggcct ttcagcgagc gctgctactg 120
 cgaccattat tccacaatgc tctagctc ctatagccat tattctacag ttgcacctat 180
 caccaactgt aacgtgctta tgacataacc caattcatga actactacat gatccaacag 240
 gcaagcgcag atggcatact acctctataa cgctagttgc tacaacaatc attaggcact 300
 attacaacat acaaactatg gcgcatgcac agccacaaca catccaggca catcaactac 360

tgcaacatgt actagcagac aacgctgtct actattagca acagcagctg cttgcattca 420
 accaactatg ctcatcgaac tgtgcttcat accagcaaca acaaca 466

<210> 2066
 <211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E12

<400> 2066

gcaacataga aagtagaatc cattagcaac aatagagcaa caatggcgac caagatatgt 60
 tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180
 gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240
 atacctttat cgcccttggt gtttcaacaa tcaccagccc tatctttggt gcagtcattg 300
 gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat caaccaagta 360
 gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
 tctacactga accctgctgc t 441

<210> 2067
 <211> 327
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E2

<400> 2067

cccacgcgtc cgcttctcta cgtggtttat catgacgcgc atcaccattt gatgctcgct 60
 atgatgcttg caaccgtcga tgcccttatt gccttgctcag tgccgatacc agcgcataga 120
 cgctcagatc tcctatctag tcccgtagcc agacgggacg cccaaattgg caggcttagc 180
 tcgaagtgca atgcctaccg actcgggtggc gcggtggctc ggcggggcaa tcttcgcggc 240
 tcgcccgtag cgacgcagat cgtcctcttc gcatcccgct tgcggtgcgat cctgcgcgcc 300
 atacagcagc acccaacgca gagcgcg 327

<210> 2068

<211> 451
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E3

<400> 2068

cccacgcgtc cgcaactagc aacatagaaa gcacaatagt gtaccaacaa tggcagccaa 60
agtattttgc ctctttatgc tccttgggtc ttctgcaagt gctgctacgg cgaccatttt 120
cccgcaatgc tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg 180
gtcttcggta tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc 240
tggcatctta cctttatcac ccttgttctt ccaacaatca tcagccctat tacatcagtt 300
acctttgggtg catattattgg cacaaaacat cagggcacaa caactacaac aacttgtgtg 360
agcaaaccctt gctgcctact ctgagcaaca gcagtttctt ccattcaacc aactagctgc 420
attgaactct gcttcttatt tgcaacaaca a 451

<210> 2069
<211> 421
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E4

<400> 2069

cggaattccc ggagttacct ttggtgcatt tattggcaca aaacatcagg gcacatcaac 60
tacaacaact tgtgctagca aaccttgctg cctactctca gcaacagcag tttcttccat 120
tcaaccaact agctgcattg aactctgctt cttatttgca acaacaata ctactaccat 180
ttagccagct agctgcagca aaccgtgctt ccttcttgac acagcaacag ttgctgcctt 240
tctaccagca gtttgcggct aaccccgcaa ccctcttaca actacaacaa ttgttgccct 300
ttgtccaact tgctttgaca gaccagcggg gcttctacca acaacacatc attggtgggtg 360
ccctctttaa attgcttatt agttgtaatt cattaataaa gggttttttg atgatgtatg 420
t 421

<210> 2070
<211> 169
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-E5

<400> 2070

ctcatgctca agttcgtagt caggctcgatt taaaccatca ccaccatttc tagcaagagg 60
gtacctatca tagatactct ttcgactcac gacaaccaca tgtacaagga cgttattcaa 120
caacatgccca tcaatgccag aagagttcat ggacaccctg tccatctta 169

<210> 2071

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D11

<400> 2071

ctgcctcccc acttcgcacc gccaccgtct cccgaccgag acgccggcga cctccgcgcc 60
gcatcgctcc agccgatcgt tccgagattt gttgatcaaa gaaccatgga aggatcgttc 120
cagttgaatc ccaacgccag tcctttcata cctggattgc tgggttcac tgcacaaaaa 180
gccccagaaa aacaaggagg gtcacatca aagggagagc cttctggtag cacctttgat 240
ccttctgagt atgaggaaaa tgacatggat gaacttgctc tagtcaaaat ggtcttttca 300
atgttcccaa atgtctccac ggacttcatt gatgagttaa tcaaggcaaa tgattttgac 360
atgaatctga ctgttgatat gctttatgag ctgaactcac aagatatggt tcatgatgat 420
tctgaggtta tcaatcat 438

<210> 2072

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B9

<400> 2072

attgagacca acaagcaaca tagaaagtgg aatccagtag caacaataga gcaacaatgg 60
cgaccaagat acttgccctc cttatgctcc ttgctcttcc tgcacgtggt gctaacgcga 120
caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180

caatgatagc ttcagtatgt gaaaacccag ctcttcaacc ctataggctc caacaagcaa 240
 tcgcagcaag caacatacct ttatcacctt tgtttcaaca atcgccagcc ctatcttttg 300
 tgcagtcatt ggtacaaacc atcaaggcac agcagctgca gcaactcgtg ctacctgtga 360
 tcaaccaagt agctctggca aacctttctc cctactatca gcaacaacaa tttcttccat 420
 tcaaccaact atctacactg aacctt 446

<210> 2073
 <211> 444
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C1

<400> 2073

tccagatcag caaagcggca gtgcgtatag aggatcgtcg aacagaacag catgaagatg 60
 gtcacgttc tcgtcgtgtg cctggctctg tcagctgccg gcgcctctgc aatgcagatg 120
 ccctgccct gcgcggggt gcagggttg tacggcgtg gcgcgggct gacgacgatg 180
 atgggcgccg gcgggctgta cccctacgcg gagtacctga ggcagccgca gtgcagcccg 240
 ctggcgccg gccctactac gccgggtgtg ggcagccgag cgccatgttc cagccgctcc 300
 ggcaacagtg ctgccagcag cagatgagga tgatggacgt gcagtccgtc gcgcagcagc 360
 tgcagatgat gatgcagctt gagcgtgccg ctgccggcag cagcagcctg tacgagccag 420
 ctctgatgca gcagcagcag cagc 444

<210> 2074
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C10

<400> 2074

attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaaga 60
 ttttgccctc ttatgctcct tggctttctt gcaagtgtg ctacggcgac cattttcccg 120
 caatgctcgc aagctcctat agcttcctt cttccccctg acctctcacc agcgggtgtc 180
 tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240

atcttacctt tatcaccctt gtctctccaa caatcatcag ccctattaca acagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420
 aactctgctt cttatttgca ac 442

<210> 2075
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C11

<400> 2075

aacatagaaa gcacaatagt gtaccaacaa tggcagccaa aatattttgc ttccttatgc 60
 tccttggctt ttctgcaagt gttgctaccg caaccatttt cccacaatgc tcacaagctc 120
 ctatagcttc ccttcttccc ccatacctct caccagcggg gtcttcaatg tgtgaaaccc 180
 caattgttca accctacagg atccaacagg caatcgcaac aggcatctta ccattatcac 240
 ccttggttct ccaacaaccg tcagccctat tacagcagtt acctttgggc catttggtgg 300
 cacaaaacat cagggcacia caactacaac aacttgctgt agcaaacctt gctgcatact 360
 ctcagcaaca tcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt 420
 tgcaacac 428

<210> 2076
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C12

<400> 2076

aatattttga gcattcagaa acacaccaag cgaagcgcac tagcaacgac ctaagaacaa 60
 tggctaccaa gatattagcc ctcttgcgc ttcttgccct ttttgtgagc gcaacaaatg 120
 cgttcattat tccacaatgc tcacttgctc ctagtgccat tattccacag ttctctccac 180
 cagttacttc aatgggcttc gaacacctag ctgtgcaagc caacatgcaa caacaagcgc 240
 ttgcggcgag cgtcttacia caaccaattg cccaattgca acaacaatcc ttgccacatc 300

taacaataca agccatcaca acgcaacagc aacaacagtt cctaccagca ctgagccacc 360
tagccatggg gaaccctgcc gcctacttgc aagagcagct gcttgcattcc aaccacttg 420
ctctggcgaa cgtag 435

<210> 2077
<211> 233
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C2

<400> 2077

gcagcaactg ctccaggact tcttcaactg ctaggagctg tgcaagaaca tcaaccccgga 60
tgaggctgtc tccttatggg gctgttgtcc atgctgccat tctgagcggg gaggtctatt 120
agaaggtgct ggacctgctt gctgtgtaca ttaatcctct gttcatgtgt atacagactt 180
attcaatagt actggctgca ataagccatc agaacaagca ttttaccatc att 233

<210> 2078
<211> 441
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C3

<400> 2078

cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa aaccaaggc 60
ttcaacccta taggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 120
tcctccaaca atcatcagcc ctattacagc agttaccttt ggtgcattta ttggcacaaa 180
acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 240
aacaacagtt tcttccattc aaccaactag ctgcattgaa ctctgcttct tatttgcaac 300
aacaacaact accattcagc cagctatctg ctgcctaccc ccagcaattt cttccattca 360
accaactgac agctttgaac tctcctgctt atttacagca gcaacaacta ctaccattca 420
gccagctagc tgggtgtgagc c 441

<210> 2079
<211> 418
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C4

<400> 2079

cgacattcaa tgagctgaac cagctcgcgg aagaggcccg caggagagcc gagatggcga 60
ggttgcgaga agtgagcacc ctgaagggga ggatggagtc agtgggtgaag cagaagggtc 120
tggacatcga gaccatccag cagtcctaca ccgtgtgact ggctgaccga cgacgacggg 180
gtttatagag gtttcttctt cttatactat acaatctgta ctaggttagca ataaggatca 240
aggaaggaac ccctatatat tggctgtggt tcgcgggaaa tgaatgatgg tcatatttat 300
gatgtcggtg tgggtgcttct gtcgccaaact ctcgaccata ctaccctcaa ctcacccctt 360
gtatgctgtg gcattaacca cccccggcac caccggcagg cattgatatt gagagatg 418

<210> 2080

<211> 282

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-C5

<400> 2080

cggacgcgtg ggtttcttat gagttatagt tcaataataa atctaaaaga ggtctcttga 60
tatttataat tttntgccgg gcattgtaag ttgcatttta cttttcattc cctatctcct 120
gcaactatta ttatgtttat tacatgtgct acctttgggtg cctctattca tacatacctt 180
actgctacaa caacttcaac tacttgtgct agctgacttc gctgactact ctcagctaca 240
acaatttttc ctactcaatc aactgtattc atttgactat gc 282

<210> 2081

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-C6

<400> 2081

gtgtgtgtgt ggggtgcagcg ctgaggagga tcggagtga ggggggtggag gtgcgcaagc 60

cggagcagct ccggggcatc gactcgctca tcatccccgg tggcgagagc accaccatgg 120
 ccaagctcgc caactaccac aacctgttcc ctgcacttcg agagttcggt ggaggtggaa 180
 agcctgtctg gggaacctgt gctgggctca tctttcttgc aaacaaagca gtagggcaaa 240
 aaacaggggg gcaggaactt gttggaggat tagattgtac agtccaccga aacttttttg 300
 ggagtcaagt tcaaagcttt gagacagagc tttcggtgcc aaagctttcg gagaaggaag 360
 gagggaatga tacatgccgc ggtgtatnta tacgggcacc tgctatattg gaagtaggtc 420
 cagatgttga aatattggc 439

<210> 2082

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C7

<400> 2082

gaccaacaag caacatagaa agtgggaatcc agtagcaaca acagagcaac aatggcgagc 60
 aagatatttt cctccttat gtccttgcg ctttctgcat gtgttgctaa cgcgacaatt 120
 ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatg 180
 atagcttcag tatgtgaaaa ccagctctt cagccctata ggctccaaca agcaatcgca 240
 gcaagcaaca tacctttatc acccttggtg tttcaacaat cgccagccct atctttggtg 300
 cagtcattgg taaaaccat caaggcacag cagctgcagc aactcgtgct acctgtgatc 360
 aaccaagtag ctctggcaaa ctttctccc tactctcagc aacaacaatt tcttccattc 420
 aaccaactgt ctacactgaa ccctgctgt 449

<210> 2083

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C8

<400> 2083

tgcagccctt tggtaatgcc ttttctccaa tcacgttga tacaaccaag tagctgccag 60
 gtattgcagc aacaatgttg tcatgatctt aggcagattg agccacaata cattcaccaa 120

gcaatctaca acatggttca atccataatc caggaggagc aacaacaaca accatgtgag 180
 ttatgtggat ctcaacaagc tactcaaagt gcggtggcaa tcttgacagc agcacaatac 240
 ctaccatcaa tgtgcggctt gtaccactca tactaccaa ataatccatg cagcagcaat 300
 gacattagtg gtgtttgcaa ttgaagaatt gtgtctacct agccgttata ctcctataac 360
 ggtgttaagc aataaagtac catacattat gatgtttgta ctatgatatt tgaataagaa 420
 tactaattgt aatt 434

<210> 2084
 <211> 432
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-C9

<400> 2084

cgcaaattgc accaagaaat ccatcgagag gccgtcgaca ggggaattaa tggcgtcggc 60
 gtctagcagc agccaccgcc gcctcactct cgcagccgcc gtctgtctct ccgtgtctgc 120
 ggctgccagc gccagcgccg ggacctcttg cgtgccgggg tgggccatcc cgcacaacct 180
 gctcccgagc tgccgctggt acgtgaccag ccggacctgc ggcacggggc cgcgcctccc 240
 gtggccggag ctgaagagga gatgctgccg ggagctggcg gacatcccgg cgtactgccg 300
 gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg ccggggcccg acgcgcagct 360
 ggagggccgc ctagaggacc tgccgggctg cccgcgggag gtgcagaggg gattcgccgt 420
 caccctcgtc ac 432

<210> 2085
 <211> 447
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D1

<400> 2085

ctcagcaaca acagtctctt ccattcaacc aactagctgc attgaactct gcttcttagt 60
 tgcaacaaca acaactacca ttcagccagc tatctgctgc ctacccccag caatttcttc 120
 cattcaacca actgacagct ttgaactctc ctgcttattt acagcagcaa caactactac 180

cattcagcca gctagctggt gtgagccctg ctaccttctt gacacaacca caattgttgc 240
 cgttctacca gcacgctgcg cctaacgctg gcaccctctt acaactgcaa caattgctgc 300
 cattcaacca acttgctttg acaaaccxaa cagcattcta ccaacaaccc atcattggtg 360
 gtgccctctt ttagatttct tatgagttat agttcaataa taaagttttt tgtctgatgt 420
 ttgtggcttc ccagaaataa gaaagta 447

<210> 2086
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-D10

<400> 2086

ctctagggaa gcaaggtggt gccaaaccca aaggaccgct ggaggcactt aggcgcaagc 60
 ttcagccaac acgccaacaa cagcaacaac gtgcaaggcg ccctatttac acttcgtcag 120
 aaaacgagga cggagacggt gctggtgctg aggatatgaa catcaattga agtggagtgg 180
 aatgcctgct cagattggtt gatgagcaag tcgtcactat atgtcaagtg ctgtagtttg 240
 ctttgcaatt attggaggaa ttaaattgatc gtctgctggg ttcattgagtc gaacatttga 300
 tatatatggc ctattattta ctactatata tttttattat ctgtggataa acatttgata 360
 tgcattgaggt ggccgagctg tgactgtgag tagggctgga cgagatactc gtagcttgat 420
 aactcgctcg attcggctc 439

<210> 2087
 <211> 406
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A4

<400> 2087

ctggacgtca gcctagcaat tagctcatcg actccagatt ggagaactcg acaccatgaa 60
 ggtgctgata gttgcccttg ctctcctggc gctcgctgcg agcgccgcct ccagtacaag 120
 cggcggctgt ggctgccaga caccaccgtt tcattctaccg cctccgttct atatgccgcc 180
 tccgttctat ctgccgccgc agcagcagcc gcagccatgg caatacccca ctcaaccacc 240

gcagctaagc ccgtgccagc agttcggatc ctgcggcgtc ggcagcgtcg gcagcccgtt 300
cctggggccag tgcgtcgagt tcctgaggca ccagtgcagc ccggcggcga cgccctacgg 360
ctgccacag tgccaggcgc tgcagcagca gtgctgccac cagatc 406

<210> 2088
<211> 409
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A5

<400> 2088

cgcgagaccg ccggcgaatt tggtgcagtg cactgaagcc aacagctgca ggacaggagg 60
aggaggagga gctgtttcaa caattatccc ccgcgcgccc aggccagccc cgcccccgcc 120
cgcccactct cccgaggatt ccaggttctc aacacaacag acaacaccgc tcaccgcata 180
tatatatata tagatggggtt ccgagggggc ttctcccgtc accgtccacg tcaccggatt 240
caagagggtc catggagtcg ccgagaaccc gacggagagg atcgtgcgcg gtctccagcc 300
attcatggag acgagagggg tgcccaaggg ccttgttctc gggagctgca ccgtccttga 360
ggccgccggg cagggcgcgc ttggcccgt gtatgaactg ctggagtcg 409

<210> 2089
<211> 447
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A6

<400> 2089

attgtgagca ttcagaaaca caccaagcga agctacctag caacgactta acaacaatgg 60
ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat accacagttc ctccgaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccta caagctacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattaacc aattgcaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaaca caacagcaac aacagttcct accagcactg agccaactag 360
atgtggtgaa ccctgtcgcc tacttgcaac agcaggtgct tgcacccaac ccacttgctc 420

tggcaaacgt agctgcatac caacaac

447

<210> 2090

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A7

<400> 2090

caggcaatca cagctggcat cttaccttta tcacccttgt tcctccaaca atcatcaggc 60
ctattacatc agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta 120
caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttccattc 180
aaccaactag ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 240
cagctacctg ctgcctaccc ccagcaattt cttccattca accaactggc agcattgaac 300
tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc 360
cctgctacct tcttgatata accacagttg ttgccgttct accagcacgc tgcgcctaac 420
gctggcaccc tcttacaact gcaac 445

<210> 2091

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A8

<400> 2091

cccacgcgtc cgcccacgcg tccttaatca cacctagcga agcgcactag caacgacgta 60
acaacaatgg cttccaagac attatccctc cttgcgcttc ttgccctttt tgtgagtga 120
acaaatgcgt tcattattgc actttgctca cttgctccga gtgccattat tccacagttc 180
ctccctccag ttacttcaat gggcttcgaa cacctagctg tgcaagccta taggctacta 240
catgcgcttg cggcaagcgt cttataactt ccaattgtcc agttacaaca acaattcttg 300
gcactatgta tctatacata ccacgcgaac gcagcagcaa caagcacttt gcctcctatt 360

<210> 2092

<211> 447

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-B1

<400> 2092

atcgctcgta accgcaagac aggaaagtcc aagcactatg gattcattga gtttgagaac 60
cctgctgtgg caaaggctcgt agcagatgag atgaataact atctcttggt tgagcgcacc 120
ttgcaagttg cacttggtga gccagagaaa gttcatccta aattatggaa aggggtgcga 180
aggggattta tacctggtga tcgagtagca attgaacgga agagacacaa caaggataag 240
actgtagcag agcacaaaaa gatgggttgaa ggaattgtaa agcgggatgg aaagcgtcgc 300
aaaagaatca aggcagctgg tattgactat gagtgtccag ctcttatagg gagcattcaa 360
ccatcagcga aaaagatcaa gttcgatgag gcatagtatt ttattctaag gggctgttgg 420
atccttagta gacgaggcng tggaatg 447

<210> 2093

<211> 223

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B10

<400> 2093

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gattttttgcc atccttgccc tccttgctct ttcagcaagc gttgctaccg cgactattat 120
tcacaatgc tcacaacaat acctctctcc ggtgacagcc gcgagatttg aatacccaac 180
tatacaatcc tacaggctac aagaggccat cgcagcaagc atc 223

<210> 2094

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-B11

<400> 2094

agcaaagcgg cagtgcgtag agaggatcgt cgaacagaac agcatgaaga tggatcatcgt 60

tctcgtcgtg tgcctggctc tgtcagctgc cagcgccctc gcaatgcaga tgccctgccc 120
ctgcgcgggg ctgcagggct tgtacggcgc tggcgccggc ctgacgacga tgatgggagc 180
cggcgggctg taccctacg cggagtacct gaggcagccg cagtgcagcc cgctggcggc 240
ggcgccctac tacgccgggt gtgggcagcc gagcgccatg ttccagccgc tccggcaaca 300
gtgctgccag cagcagatga ggatgatgga cgtgcagtcc gtcgcgcagc agctgcagat 360
gatgatgcag cttgagcgtg ccgctgccgn cagcagcagc ctgtacgagc cagctctgat 420
gcagcagcag cagcagctgc tg 442

<210> 2095

<211> 289

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-039-Q1-K1-B12

<400> 2095

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cgataagccc aaggagaaag ggaaacctca aaagcaacca cccactctc ttccatcaaa 120
agagatgaag aacagtcaaa tggtagagag gcaaagcctc gaaaagggtg aagcacgcca 180
tcatatgggt tcaccttcaa gtgtgatgag agatctgaaa aaagaccaga gttctattcg 240
aagcttgaag agaagattca tgcaagaaag ttagaaataa gcaatttgc 289

<210> 2096

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B2

<400> 2096

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atggcggcgt cggatgttga gtaccgctgc ttcgtcggcg gcctcgctg ggccacggac 120
gaccactccc tccacaacgc cttcagcacc tacggcgagg tctcgagtc caagatcatc 180
ctcgatcggg agacgcagag gtcccgcggc ttcggcttcg tcaccttctc cacggaggag 240
gcgatgcgga acgccatcga gggcatgaac ggcaaggagc tggacggcgg caacatcacc 300

gtcaacgagg cccagtcccc eggcgccgt ggaggcgccg gcggcgccgg gtacgggtgg 360
ggccgtggag gcggcgccga cggcggtggc gggcgccgtg atggcgccgg cggctac 417

<210> 2097
<211> 404
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B4

<400> 2097

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgtccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaaaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaag agcagctgct tgca 404

<210> 2098
<211> 451
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B5

<400> 2098

caacaacaac aacaacaaca acagcaccaa caacaacatc aatgtgaagg ccaacaacaa 60
catcaccaac aatcacaagg ccatgtgcaa caacacgaac agagccatga gcaacaccaa 120
ggacagagcc atgagcaaca acatcaacaa caattccagg gtcatgaaa gcagcaacaa 180
ccacaacagc ctgagcaata tcagcagggc caggaaaaat cacaacagca acaatgtcat 240
tgccaggagc agcaacagac tacaagggtc agctataact actatagcag tagctcaaat 300
ctaaaaaatt gtcatgaatt cctaaggcag cagtgcagac ctttggtaat gccttttctc 360
caatcacgtt tgatacaacc aagtagctgc caggtattgc agcaacaatg ttgtcatgat 420
cttaggcaga ttgagccaca atacatttac c 451

<210> 2099
 <211> 468
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B6

<400> 2099

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cagggcacaa caactacaac aacttgtgct agcaaaccctt gctgcctact ctcagcaaca 60
gcagtttctt ccatgcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 120
acaactacca ttcagccagc tacctgttgc ctaccccaaa caatttcttc cattcaacca 180
actggcagca ttgaactctc ctgcttattt acagcagcaa caactactac cattcagcca 240
gctagctggg gtgagccctg ctaccttctt gacacaacca cagttgttgc cgttctacca 300
gcacgctgcg cctaacgctg gcaccctctt acaactgcaa caattgctgc cattcaacca 360
acttgctttg acaaacctag cagtgttcta ccaacaacc atcattgggtg gtgccctctt 420
ttagatttct tatgagttat agttcaataa taaagttttt tggctgat 468
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<210> 2100
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-B7

<400> 2100

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gatccaacag gcaatcgag caggcatctt acctttatca cccttggtcc tccaacaacc 120
gtcagcccta ttacagcagt tacctttggg gcatttggtg gcacaaaaca tcaaggcaca 180
acaactacaa caacttgtgc taggaaacct tgctgcctac tctcagcaac agcagtttct 240
tccattcaac caactggctg cattgaactc tgctgcttat ttgcaacaac aactaccatt 300
cagtcagcta gctgctgcct acccccagca atttcttcca ttcaaccaac tggcagcatt 360
gaactctgct gcttatttac aacagcaaca gctaccacca ttcagccagc tagctgatgt 420
gagccctggg gccttcttga cacaac 446
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<210> 2101
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A3

<400> 2101

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 tgaaactgaa gaagaagctt caaagctact gttagctggg aaggtcccag ttggaatagg 120
 aaggaacaca aagataagga actgtatcat tgacatgaat gctaggattg ggaagaacgt 180
 ggtgatcaca aacagtaagg gcatccaaga ggctgatcac ccggaagaag ggtactacat 240
 aaggtctgga atcgtgggtga tcctgaagaa tgcaaccatc aacgatgggt ctgtcatata 300
 gatcggctgc gtttgcgtct acaaaacaag aacctacaat ggtattgcat cgatggatcg 360
 tgtaaccttg gtatggtaag agccgcttga caggaagtcg agcgttcggg cgcaagatgc 420
 gtaatctggc atgct 435

<210> 2102
 <211> 437
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E2

<400> 2102

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 catcgttctc gtcgtgtgcc tggctctgtc agctgccagc gcctctgcaa tgcagatgcc 120
 ctgcccctgc gcggggctgc agggcttgta cggcgctggc gccggcctga cgacgatgat 180
 gggcgccggc gggctgtacc cctacgcgga gtacctgagg cagccgcagt gcagcccgt 240
 ggcggcgggc ccctactacg ccgggtgtgg gcagccgagc gccatgttcc agccgtccg 300
 gcaacagtgc tgccagcagc agatgaggat gatggacgtg cagtccgtcg cgcagcagct 360
 gcagatgatg atgcagcttg agcgtgccgc tgccgccagc agcagcctgt acgagccagc 420
 tctgatgcag cagcagc 437

<210> 2103
 <211> 437

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-E3

 <400> 2103

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 ccaagatatt atccctcctt gcgcttcttg cgctttttgc gagcgcaaca aatgcgtcca 120
 ttattccaca atgctcactt gctcctagtt ccattattcc acagttcctc ccaccagtta 180
 cttcaatggc cttctgaaca cccagctgtg caagcctata ggctacaaca agcgattgcg 240
 gcgagcgtct tacaacaacc aattgccc aa ttgcaacaac aatccttggc acatctaaca 300
 atacaaacca tcgcaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc 360
 atggtgaacc ctgtcgccta cttgcaacag cagctgcttg cattcaaccc acttgctcta 420
 gcaaacgtag ttgcaaa 437

<210> 2104
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E4

 <400> 2104

 ctagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat ttgacctcct 60
 tatgctcctt ggtctttctg caagtgtgctg tacggcgacc attttcccg c aatgctcgca 120
 agctcctata gcttcccttc ttccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaaccaatt cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt 240
 atcacccttg ttcttccaac aatcatcagc cctattacat cagttacctt tgggtgcattt 300
 attggcacaa aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
 ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
 ttatttgcaa caacaa 436

<210> 2105
 <211> 348
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E5

<400> 2105

tgcagaacgt actgagcaag aaggtggatg tgtcgttcga gaagagttag attgagaaac 60
tccaaaagga aattgacagt gataactcgt ctgccgtgca acttcagtat gagcttgaag 120
tgtagaggaa ggcacatct atggcaaggt cttgagcaga cgacgaagcc caaaaggtac 180
ggcagcatgc actcgccctt gaggaggcct ggaatcaatg ggagcgtcaa ggaatcagag 240
atgatgtaga aggataactg actgatgact actcacctcg cgtgacatgg gcttacgctg 300
gcatataaca cgcataccac gagtctatca accgatcgga agctctgc 348

<210> 2106

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-E6

<400> 2106

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ctggattcgg cgccattggc tgcagaaaaa actgactcca ttgaccttgc atgtccattg 120
tgtcgtggca aggtgaaagg gtggacggtg gtggaaccag ctcgaagcta cctcaatgga 180
aaacgaagaa catgcatgca ggatgggtgc tcatttgtgg tgacctaaa ggagctccgc 240
aagcatgtca agttggaaca ccctcttgca aagccaaggg aagttgatcc tgtccttgag 300
caaaaatgga gattgctcga gattganaga gagctgcaag atgcgctcag cacgatcacg 360
gcaacaatgg gcagagcccg tgtttttcgt gattatgtgc tagacttgga cgatggaat 419

<210> 2107

<211> 302

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E7

<400> 2107

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cttacaacaa cagcaattgc tgccatttag ccaactcgct ttgacgaatc ctaccacctt 120
attgcatcag cccaccattg gtggtaccat cttctagatt ttttatgctt tatactgtaa 180
taataaattt ctcatactga tatgtgcaac ttctcagtaa taaaagatta gagatctata 240
aaaaaaacga aaaaaaacaa aaaaaagacc aaaagcaaca aaaaaacaag gcacatctaa 300
ca 302

<210> 2108

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E8

<400> 2108

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tgctgatgca gctggcgaga ttgttgaagt tcttacagaa tccttgacac tcaaggagac 120
gtctattcca acatagggtg ctcggtttat gctagcgtct gacatccttc ataacagtag 180
cgctcctgtg aagaacgcat ctgcattccg aacgaaattt gaagcttctt tgccagatgc 240
tatggagagc tttaatgact tgtatcgag tatcactggg aggattactg ctgaagccct 300
tgaagagagg gttatgatag ttctacaagt ttgtgcagac tggttcctgg tttctgatgc 360
atttcttaat gggctgaggg ctacttttct t 391

<210> 2109

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F1

<400> 2109

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gctagcctaa aatctggttc aaaccttgca tgcaacactc atgatgggat aaatgaccac 120
tctggcacac taaagttgca atcagctggg caaagcacat tgcttgaagt ggatgagtag 180
agtgaactgg gaaacctttc ctcagaagta tcagcaatat atcttgctat gcagcagtct 240
aagttggagt gcattgatga acagagtcaa gattctacct caacagaagg ttatggtgaa 300

gctgaggaga ctgaagagta tgatgatttt gaccctact cctttatcaa agatttacct 360
gatttatcta tgggtggcccc caaatttcgt cctgttctcc ttccaaagca gaccggagt 420
tgtcctacta tgac 434

<210> 2110
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F10

<400> 2110

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agtcaactag ccatggtgaa cccctgccgc tacctacaac agcaacaact gatttcattc 180
agccctctcg ctgtggttaa tgcacctaca tacctgcaac aacagttgct gcaacagatt 240
gtaccagctc tgactcagct agctgtggca aaccctgctg cctacttgca acagctgctt 300
ccattcaacc aactgactgt gtggaactct gctgcgtacc tacaacagcg acaacagtta 360
cttaatccac tagcgggtggc taaccattg gtcgctgcct tcctacagca gcaacaattg 420
ctgccataca acca 434

<210> 2111
<211> 438
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F11

<400> 2111

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aaccgtcagc cctattacag cagttacctt tgggtccattt ggtggcacia aacatcaggg 120
cacaacaact acaacaactt gtgctagcaa accctgctgc atactctcag caacatcagt 180
ttcttccatt caaccaactg gctgcattga actctgctgc ttatttgcaa caacaattac 240
cattcagcca gctagttgct gcctaccccc agcaatttct tcattcaac caactagcag 300
cattgaactc tgctgcttat ttacagcagc aacaactact accattcagc cagctagctg 360

atgtgagccc tgctgccttc ttgacacaac aacagttggt gccgttctac ctgcacgcta 420
 tgcctaacgc tggcaccc 438

<210> 2112
 <211> 437
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F12

<400> 2112

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 ctccatagc ttcccttctt ccccgctacc tctcaccaac ggtgtcttcg gtatgtgaaa 180
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 cacccttggt cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat 300
 tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
 actctcagca acagcagttt ctccattca accaactagc tgcattgaac tctgcttctt 420
 atttgcaaca acaacaa 437

<210> 2113
 <211> 434
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F2

<400> 2113

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 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
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 ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 360
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tttgcaacaa caac

434 .

<210> 2114

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F3

<400> 2114

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atcttgcttc attatgctcc ttggtctttc tgcaagtgtc gctacggcga gcattttccc 120
gcaatgctca caagctccta tagcttccct tcttccccca tacctctcac cagcgatgtc 180
ttcagtatgt gaaaatccaa ttcttctacc ctacaggatc caacaggcaa tcgcagcagg 240
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tttggtgcat ttattggcac aaaacatcaa ggcacaacaa ctacaacaac tcgtgctagc 360
aaaccttgct gctactctc agcaacagca gttacctttg gtgcatttgt tggcacaaaa 420
catcagggca caacaactac aacaactcgt gc 452

<210> 2115

<211> 209

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F4

<400> 2115

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agcggagacg ccacacatta tcatgtgtgg tatgaccaat aatatatgca tggtcataat 120
aaagttttgg ttttaatgaa tcaaaaaaaaa aaaaaaaaaa aaaagaaaaa taaaaaaaaa 180
taaaaaaaca aaaaaaaaaa atacaagaa 209

<210> 2116

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-F6

<400> 2116

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tattgcaaca accatcctta atgaatctat atctccaaag aatcgcagca caacaactac 120

aacaacagtt gcttccaaca atcaatcaag tagttgcagc gaaccttgct gcttacctcc 180

agcaacaaca atttcttcca ttcaatcaac tagctggggt gaacctgct gcttacttgc 240

aggcacaaca gctactacca ttcaaccaac ttgtcaggag ccctgctgcc ttcttactgc 300

agcaacagtt gcttccattc catctacaag ttgtggcaaa cattgctgct ttcttgcaac 360

aacaacaaca attgctgcca ttttaccac aggttgtggg aaacattaac gcctacctac 420

aacagcaaca act 433

<210> 2117

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E12

<400> 2117

gaaagcacia tagtgtacca acaatggcag ccaaaatatt ttgcctcctt atgctccttg 60

gtctttctgc aagtgtgct acggcgacca ttttcccgca atgctcgcaa gctcctatag 120

cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa aaccaattc 180

ttcaacccta caggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 240

tcctccaaca atcatcagcc ctattacaac agttaccttt ggtgcattta ttggcacaaa 300

acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360

aacagcagtt tcttccattc aaccaactag gttcattgaa ctctgcttct tatttgcaac 420

aacaacaact ac 432

<210> 2118

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-C8

<400> 2118

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 aggtagcgca gcagctgacg gcgatgtgcg gcctgcagct gcagcagcca ggtccctgcc 180
 cttgaacgca gctgccggcg gtgtctacta ctgaagaaac tatgtactgt agtaataatg 240
 taatggagcc gctgactagc tacctagcta gctagttgag tcatttagcg gcgatgattg 300
 agtaataatg tgtcacgcat caccatgggt ggcagagtca gtgtgagcaa tgacctgaat 360
 gaacaatt 368

<210> 2119
 <211> 404
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D10

<400> 2119

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 ggctgccagc gccagcgccg ggacctctg cgtgccgggg tgggccatcc cgcacaaccc 180
 gctcccagc tgccgctggt acgtgaccag ccggacctgc ggcacgggc cgagcctccc 240
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 gtgcacggcg ctgagcatgc tcatggacgg cgcgatcccg ccggggcccg acgcgcagct 360
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<210> 2120
 <211> 401
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D11

<400> 2120

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 ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgctccta gtgccattat accacagttc ctccgaccag 180

ttactttcaat gggcttcgaa cacctagctg tgcaagccta caggctacaa caagcgcttg 240
 cggcgagcgt cttacaacaa ccaattaacc aattgcaaca acaatccttg gcacatctaa 300
 ccatacaaac catcgcaaca caacagcaac aacagttcct accagcactg agccaactag 360
 atgtggtgaa ccctgtcgcc tacttgcaac agcaggtgct t 401

<210> 2121
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D12

<400> 2121

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 ttcaacccta caggatccaa caggcaatcg cagcaggcat cttaccttta tcacccttgt 120
 tcctccaaca accgtcagcc ctattacagc agttaccttt ggtgcatttg ttggcacaaa 180
 acatcaaggc acaacaacta caacaacttg tgctaggaaa ccttgctgcc tactctcagc 240
 aacagcagtt tcttccattc aaccaactgg ctgcattgaa ctctgctgct tatttgcaac 300
 aacaactacc attcagtcag ctagctgctg cctaccccca gcaatttctt ccattcaacc 360
 aactggcagc attgaactct gctgcttatt tacaacagca acagctacca ccat 414

<210> 2122
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D4

<400> 2122

aatgagggtg agttcaagac agcttcaggt cagctgctgg accttatcac tacccatgag 60
 ggagaaaaag atctaacaaa gtataacata acagttcacg gtcgaattgt tcaatacaag 120
 acagcctatt attcatttta tctgccggtt gcatgtgcc tgctgctctc tggcgagaat 180
 ttggacaatt atgggtgatg agagaacatc cttgttgaaa tgggaacata ctttcaagtc 240
 caggatgact atctggattg ttatggtgat cctgaattta tcggcaagat tggaacggac 300
 attgaagatt acaagtgctc atggctagtt gtgcaagccc ttgagcgtgc tgatgagagc 360

caaaagcgca ttctatttga aaattatggc aagaaagatc cagcctgtgt ggcaaaagtg 420
aagaacctct acaaag 436

<210> 2123
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D5

<400> 2123

gaaagcacia tagtgtacca acaatggcag ccaaaatatt ttgcctcctt atgctccttg 60
gtctttctgc aagtgtgtgt acggcgacca ttttcccgca atgctcgcaa gctcctatag 120
cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa aaccaattc 180
ttcaacccta caggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 240
tcctccaaca atcatcagcc ctattacaac agttaccttt ggtgcattta ttggcaciaa 300
acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactcttaac 360
aacagcagtt tcttccattc aaccaactag gttcattgaa ctctgcttcc tatttgcaac 420
aac 423

<210> 2124
<211> 380
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-D6

<400> 2124

catcaagcaa catagaaagt ggcatacttt agcatcaata gagcaacaat ggcggccatg 60
gaatattcca tccttacgtt cagagctctt tctgcatgtg ttgctaacgc gaccatcata 120
tctcattact tacaagctac tatagctgcc ctttttgctg catccttaca ttaatgaccg 180
cttcagtttg cgagatccca tgcatttaac cgtacaggct ccaacacgct tatctagcac 240
gccatgttac ctgtatgacc tgtgtggttt caatcaatgg cagccttata tctggtgcat 300
gtcattgata cagaccatca cggcacacca gctgcatcaa ctctgtctac cagtgatcag 360
ccaagtagct ctggcaaacc 380

<210> 2125
 <211> 365
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-D7

 <400> 2125

 aattcccggtg ctgccccaaac actgacttgt gtctgatgaa cttagatggt tacattgatg 60
 atgaaaagtt gcgtgaaatc ggtgggtgtgt atggcaatat tacttggtgc aagggttatgc 120
 tggattcgta tgggtgtcagc agacgttctg gatacgggtgc attcagatct gctgtagatg 180
 ctaaccgagc tcttaccgag atgaatggca caatgggttg aagcaagccc ctttatgtcg 240
 ctcttgacac gcctagcgat gacacacatg caaagctacg ggcacagagt tcacaaatgc 300
 gtcctgttgc agtggcacct tcagtagggt ctcgcatgcc catgtttaca cctagtgttc 360
 ctgga 365

<210> 2126
 <211> 353
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-D8

 <400> 2126

 aatagcaaca catatagcac agtcagacat caacattggc gcccaaaata ttgtgcctct 60
 gtatgctctt cgatatgctt gcaagtgatg ctactgcgac catgatgacg aaatgctcac 120
 aagctactat agctacaatt cttgccaagg acctctgacg agcgatgact tcggtaggcg 180
 aaaacgcaat tcttgaatgc tacaggatac aacaggcgat cgcaacaggc atcttagatt 240
 tatcacgctc gatgctgcaa caatcatcag ccatatcaca gcagatgcac tatcgagcat 300
 atattgacgc aaaacatcag gacacaacaa ctacaacaac ttatgctagc aaa 353

<210> 2127
 <211> 386
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-D9

<400> 2127

gggttcgtga gggttctccgg gggttcgggtt cgtgggtgag cggatcgaga tggcggcgctc 60
ggatgttgag taccgctgct tcgtcggcgg cctcgcttgg gccacggacg accactccct 120
ccacaacgcc ttcagcacct acggcgaggt cctcgagtcc aagatcatcc tcgatcggga 180
gacgcagagg tcccgcggct tcgggttcgt caccttttcc acggaggagg cgatgcggaa 240
cgccatcgag ggcataacg gcaaggagct ggacggccgc aacatcacgc tcaacgaggc 300
ccagtcccgc ggcggccgcg gagggcggcg cggcggcggg tacagtgggtg gccgtggagg 360
cggcggctac ggcggtggcg ggcgcc 386

<210> 2128

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E1

<400> 2128

gttccaaaac actaacttgt atctgaagaa cttagatgat aacattgatg atgaaaagtt 60
gCGTgaaatc tttgctgagt atggcaatat tacttcttgc aaggttatgc gggattctta 120
tggtgttagc agagggtctg gatttgttgc attcaaactc gctgaagatg ctaaccgagc 180
tcttaccgag atgaatggca aaatggttgg aagcaagccc ctttatgtag ctcttgcaca 240
gCGTaaagat gacagaaagg caaagctaca ggcacagttt tcacaaatgc gtcctgttgc 300
aatggcacct tcagtaggtc ctcgcagtcc catgttttca cctagtgttc ctggagttag 360
tcagcagctg ttttatggtc agccaccttc agccttcatt aacccttagg ctggatttgc 420
tttccagcaa ccta 434

<210> 2129

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-E10

<400> 2129

attagcggct acacaaatgc ctgaagagcc agctggatgg ttccagggtg cagcagactc 60

tatcagaaaa tttatctggg tactcgagga ttattacagt cacaaatcca ttgacaacat 120
 tgtaatcttg agtggcgatc agctttatcg gatgaattac atggaacttg tgcagaaaca 180
 tgtcgaggac gatgctgata tcactatatac atgtgctcct gttgatgaga gccgagcttc 240
 taaaaatggg ctagtgaaga ttgatcatac tggacgtgta cttcaattct ttgaaaaacc 300
 aaaggtgct gatttgaatt ctatgagagt tgagaccaac ttcctgagct atgctataga 360
 tgatgcacag aaatatccat accttgcac aatgggcatt tatgtcttca agaaagatgc 420
 acttttag 428

<210> 2130
 <211> 420
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-021-Q1-K1-E11

<400> 2130

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 ctttggtgca gtcattggta caaaccatca gggcacaaca gctgcagcaa ctctgtgctac 120
 ctgtgatcaa ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc 180
 ttccattcaa ccaactgtct aactgaacc ctgctgctta ttgagcaa caactattac 240
 catttagcca gctagctact gcctactctc agcaacaaca acttcttcca tttaaccaat 300
 tggccgcact gaaccccgct gcttatttgc agcagcaaact actactgcca tttagcgagc 360
 tagctgcagc aagtcgtgct tnccttctga cacagcaaca gttgctgcct ttctacaagc 420

<210> 2131
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B3

<400> 2131

gcaacataga aagtagaatc cattagcatc aatagagcaa caatggcgac caagatattt 60
 tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat tatagcttca 180

gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240
 atacctttat cgcccttggt gtttcaacaa tcaccagccc tatctttggt gcagtcattg 300
 gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat caaccaagta 360
 gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
 tctacactga accct 435

<210> 2132
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B4

<400> 2132

ctagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat ttgcttcct 60
 tatgtcctt ggtctttctg caagtgttg taccgcaacc attttccac aatgtcaca 120
 agctcctata gcttcccttc ttccccata cctctcacca gcggtgtctt caatgtgtga 180
 aacccaatt gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt 240
 atcacccttg ttctccaac aaccgtcagc cctattacag cagttacctt tgggccattt 300
 ggtggcacia aacatcaggg cacaacaact acaacaact gtgctagcaa accttgctgc 360
 atactctcag caacatcagg ttcttccatt caaccaactg gctgcattga actctgctgc 420
 ttatttgcaa c 431

<210> 2133
 <211> 382
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B5

<400> 2133

ccgaccacg cgtgcggaag caccatctgt tgttgctcca gtggtcgaaa ttatgccct 60
 gcaagacatc aacagcgatg aaaatgcttt ggtgaatgat gtggaagaga gatccaaaga 120
 agaacatcct tgtactgaga gcctgaaagg cagcaagagg aggtcttcat tctcagctaa 180
 gcctgaatat ccagaaaatg gctccaaaaa ttctccagct ctgccaagct acatggctgc 240

tacacaatca gcaaaggcga aactgcggtg aaatagctca ccaaaactta gctctgattc 300
 agcagagaaa aacgggttca ctctgctgca ctcccttcca tcctctaaca acggttaagat 360
 gggttcacat tctccacgta ca 382

<210> 2134
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B6

<400> 2134

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 gcgggcaggt ggtggaggtg ccggcggagc tgggtggcggc gggcagccgg acgccgtcgc 120
 ccaagacgaa ggcgtcgcag ctctgtggggc gcttcctggc cgcgtccgag ccggccgtgt 180
 ccgtgcagct cggcgaccac ggccacctcg cctactccca caccaaccag gcgctcctcc 240
 gccccaggtc gttcgcggcc aaggacgagg tgttctgcct gttcgaaggg gtgctggaca 300
 acctgggtcg gctgagccag cagcacgggc tgtcaagcaa gggcgccaac gaggtgctcc 360
 tcgtcatcga ggctacaag acgctgcgcg accgcgcgcc ctaccgggcc agcttcatgc 420

<210> 2135
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B7

<400> 2135

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 actccaaaaa ccatgaagct ggtgcttggt gttcttgctt tcattgcttt agtatcaagt 120
 gtttcttgta cacagacagg cggctgcagc tgtggtcaac aacaaagcca tgagcagcaa 180
 catcatccac aacaacatca tccacaaaaa caacaacatc aaccaccacc acaacatcac 240
 cagcagcagc aacaccaaca acaacaagtt cacatgcaac cacaaaaaca tcagcaacaa 300
 caagaagttc atgttcaaca acaacaacaa caaccgcagt accaacaaca acaacaacca 360
 caacagcacc aaacacaaca ttaatgtgaa agcaacatac acataaccaa caatcacaag 420

gccatgtg

428

<210> 2136
<211> 428
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B8

<400> 2136

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acaagctgca gaagatgctt tccagattga tggatcatgaa ctaactcagg aacagaagga 120
gattttggct cagattatga agaagaaggc attacttata caagagcata gaatgaagaa 180
gagaactgca gaaagccgct ctattgtccc tagaaagttt gacaccagat aggaaattca 240
caactgatag gatgggacgc cagctatcat ccatgggtat ggatcctagt gctgccatga 300
atagaattcg cagtcagtct aggggtcgca agcgtgagag gtcagtgagc agagctgcag 360
cggatggtga cggtatggag atagatggcc agcaaagcaa caagaaattg cgtcggacat 420
caaggtct 428

<210> 2137
<211> 430
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B9

<400> 2137

tcggaagta gaatccatta gcaactatag atcaacaatg gcgaccaaga tattttggct 60
gcttatgctc cttgctctta ctacatgcgt cgctaacgag acaatcatct ctcaaggctc 120
tcaagctcag tatagctttc catttaacca aataccatcc atcgaactct gctgctgatt 180
gacagcacca acaactacta ccattcaggc tgctagctgc tgtgagccct ggtgacttat 240
tgacacaaca acagttgttg ccgctctaac tggacgctat gcctaacgct ggcacgctac 300
tacaactgca acaactgctg ccagttaacc aacttgcttt gacaaacccc acagtggctc 360
accaacaacc catcattgga ggtgccctct attagattgc ttatgaggta tagctcaata 420
atgaaagttt 430

<210> 2138
<211> 333
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-C1

<400> 2138

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cgacgaggca gctgtgaccg acgtgggcct cgctgtcagc ctaccggttc cggatcctgt 120
agcacgtgcc cttcagcttc gaccgggacg acgtggccat ggtctgcatg gcacgcgtgg 180
actggcgcgga gacccccgac gcgcacgaga tcgtggtcga cgtgcccagg atagcgcacg 240
gaggacctca ggatcgagga ttacgacaac atggtgctgc gcgttagcag ctagcggccc 300
agcgcttaag agcgcaaggg cgaccaatgg cac 333

<210> 2139
<211> 422
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-021-Q1-K1-C10

<400> 2139

gacaagcagc aacaaccaca acagcctcag caatatcagc agggccagga aaaatcacag 60
cagcaacaat gtcattgccg ggagcagcaa cagactacaa ggtgcagcta taactactat 120
agcagtagct caaatctaaa aaattgtcat gaattcctaa ggcagcagtg cagccctttg 180
gtaatgcctt ttctccaatc acgtttgata caaccaagta gctgccaggt attgcagcaa 240
caatgttgtc atgatcttag gcagattgag ccacaataca ttcaccaagc aatctacaac 300
atggttcaat ccataatcca ggaggagcaa caacaacaac catgtgagtt atgtggatct 360
caacaagcta ctcanagtgc ggtggcaatc tagacagcag cacaatacct accatcaatg 420
tg 422

<210> 2140
<211> 422
<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-C11

<400> 2140

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ggcagggtttc ccacggaggg ctgctcccta gggctgtcat atctcagcag cagagcggtg 120
accagcctca gcccccgagg atggagggcc aacagcaaca ggctgcacca gcatcgctact 180
acttcaacat tccagcacca ccagcaacgg agcggactgt gtatccatcc atggatccac 240
agaggatggg tgctatagta aaaccacatg acagtgaagg caaaccatgg ccgcagcaag 300
ccgggcaagc tcatgcatca agcaaccag cacaaggggg cggtatcct gcaccaccgn 360
catactacca tggtcagtat ccaccatact atccaccnc accaccatac ggtggctaca 420
tg 422

<210> 2141

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-C12

<400> 2141

atggacgtca gcctagcaat tagctcatag actccagata ggagaactcg acaccatgaa 60
ggcgctgac gttgcccttg ctctcctggc gctcgctgcg agcgccgcct ccaatacaag 120
cggaggctgt ggctgccaga caccaccgtc acatctaccg cctccgatct atatgccgcc 180
tccgttctat ctgacgacgc agcagcagcc acagccatgg caatacccca ctcaaccacc 240
gcagctaagc ccgtgccagc agctcggatc ctgcggcgtc agcagcagtc ggcagaccgt 300
tcctgggcca gtgcgtcaag ttctgaggc accagtgcag cccggatgcg acgccatacg 360
gctagtcaca gtgccaggcg ctgcaat 387

<210> 2142

<211> 364

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-C2

<400> 2142

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atagtgtgtc aggttgctgt cagctagagc catggcgctcc atgcagaaga gccgcgagca 120
gcgcgcccag gccgcggcgc agaaggcggc cgacgagctc cacgcgtcga ggcaggacag 180
agtccccgag gaggcgcccg tcagcccccg cggcgggcggc ggcatcctgg gcagcctgca 240
ggaggggaag gcgaacgcca ggggcgtggc ggacgccgcc atgggcaagg ccagcgagac 300
gaaggacgcg gcggcggaca aggcgggtgg cgtcaggac cgcgngcgg acaggacggg 360
gaat 364

<210> 2143

<211> 466

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-C3

<400> 2143

gaataccgga gaacacacca agcgaagcac attagcaaca acctaacaac aatgggttacc 60
aagatattat ccttccttgc gcttcttgcg ctttttgcca gcgcaacaaa tgcgttcatt 120
attccacaat gtcacttgc tccaagttcc attattacac agttcctccc accagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctatagga tacaacaagc aattgcggcg 240
agcgtcttac aacaaccaat ttcccagttg caacaacaat ccttggcaca tctaacaata 300
caaaccatcg caacgcaaca gcaacaacaa ttcctaccag cactgagcca actagccatg 360
gtgaaccctg ccgcctactt gcaacagcag ttgcttgcac aaaaccaact tgctctggca 420
aacgtagttg caaaccagcc acaacaacag ctgcaacagt ttttgc 466

<210> 2144

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-C4

<400> 2144

cacaagtttc gtgggtagag gaggcactag atactgtgcc agatcgggggt ctggtagtgg 60
cagttgggtg attacgacgg agtgggatgg gcctcctcga caagctgtgg gacgacaccg 120
tcgcggggccc gcgcccggac accggcctcg gccgcctccg caagcagccc gcgcgccccg 180
ccgccgttaa gatcagtgat ccggccggggg acgctgcagc gctcgtgccg ccctcgccgg 240
cttcgggtag cgaggagacg ccggtgaagg tgacgcgcag catcatgatc aagcgtcccc 300
cggggtaccc gtcttcgccg aggagcgcg caagcacgcc gncggcctct ccactaggga 360
ctaccccgcc catctcgccg tttgccggcg ctggtggtcg cttcagaaag aaatcatcat 420
ccgacgcata tgag 434

<210> 2145

<211> 162

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-C5

<400> 2145

agaaactatg tgctgtagta tagccgctgg ctagctagct agttgagtca tttagcggcg 60
atgattgagt aataatgtgt cacgcatcac catgggtggc agtgtcagtg tgagcaatga 120
cctgaatgaa caattgaaat gaaaagaaaa aagtattgtt cc 162

<210> 2146

<211> 210

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-C6

<400> 2146

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agcaggatgg tggcggcgca taggccgggg gctactcctn cggtctcccc ccgtcggacc 120
cgccgcagga gtccgggtac cgcacgttcc agggccctcg gcatacctcc gtcgggttcc 180
cgcagcctgc cccggctccc gggttcggcg 210

<210> 2147

<211> 432
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-B2

 <400> 2147

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 gaaaccctag ccccaactgat tctctccagc ccagcccagc caaggggagg ggatgtcggc 120
 ggcgccagcg gcgggagggc aggggtggcgg gggcattgac gccgcgctcc tcgacgacat 180
 catccgccgc ctgctcgagg tgccggaccgc gcgcccaggg aagcagggtgc agctctctga 240
 gtcggagatc cgccagctgt gcaccgtctc ccgcgccatc ttcctcagcc agcccaacct 300
 cctcgagctc gaggcgccca tcaagatctg cgggtgacatc catggtcaat acagtgatct 360
 tctaaggctt tttgaatatg gaagttttcc tcctgaagcc aattatctat tcttaggtga 420
 ttatgttgat cg 432

<210> 2148
 <211> 421
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-G8

 <400> 2148

 agcccatgta agagtgtgcc tgcaaaatat tctagcactg acaagagacg cttagaagga 60
 atggatgctt ctgatgtgaa atcgaagggt ccctcaggta tcaaggagaa agagccagta 120
 caagtgagga tagacttggg agacaaagag acaactccgt catttcaagt gctaaacgac 180
 aaaacatgga gtccagaccc aaagttatct tcgcacatgg acaggctgaa gaagcaacat 240
 gctgaagctg agagttatca gataaggacc aggaatgaga atgctgtcga gacccaaagc 300
 cctccaaaaa atggagtgtc gttgttgtct aagccatatg ttgataggag ggaacagaat 360
 ggtgattctg atctattggg gcatggccta agagagacag gtgtgaagag gaaaagatca 420
 c 421

<210> 2149
 <211> 418
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G9

<400> 2149

gaccattagc tttatctact ccagagcgca gaagaacccg atcgacacca tgagggtggt 60
gctcgttgcc ctcgctctcc tggctctcgc tgcgagcgcc acctccacgc atacaagcgg 120
cgggtgcggc tgccagccac cgccgcccgt tcatctaccg ccgcccgtgc atctgccacc 180
tccggttcac ctgccacctc cgggtgcatct cccaccgccg gtccacctgc cgccgcccgt 240
ccacctgcca ccgcccgtcc atgtgccgcc gccggttcat ctgccgccgc caccatgcca 300
ctaccctact caaccgcccc ggctcagcc tcatccccag ccacacccat gcccgtgcca 360
acagccgcat ccaagcccgt gccagctgca gggaacctgc ggcgttggca gcaccccg 418

<210> 2150

<211> 106

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H1

<400> 2150

ctgggtttgt caaagcaagt tggttgaatg gcagcaaccc atcattggtg gtgccctctt 60
ttagatttct gatgggttat agttcaatga taaagttttt tatctg 106

<210> 2151

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H11

<400> 2151

cgtgatcaga gagggatata tagctagcta gctagcatag catggcgctt gtagccgacg 60
acgacgccga gctcaaggcc aaggccaagg ccaaggccga ggtctactac ggcgacgagg 120
cctgtcagct gtgcgcgcag ctctgtctga gggaagcagg cctccccaac ggctgtctgc 180
cgctggagga cctgacggag tgcggtacg tccaggagac cgggtacgtg tggctgaagc 240
agggcaggag ggtcgaccac gtcttccgga gcctcggacg cctcgtctcc tacggcgccg 300

agatcaccgg gtacgccgag aagggccgga tcaggaaggt gaaggggata aagaccaggg 360
agctcatgct gtgggtgccc gtcgaggaga t 391

<210> 2152
<211> 398
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H12

<400> 2152

tttcagcatt caaaaacaca ccaagcgaag cgcactagca acgacctaac accaatggct 60
accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac aaatgcgctt 120
attattccac agtgctcact tgctcctagt gccagtattc cacagttcct cccaccagtt 180
acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg 240
gcgagcgcct tacaacaacc aattgcccac ttgcaacaac aatccttggc acatctaacc 300
ctacaaacca ttgcaacgca acaacaacaa caacagtttc tgccatcact gagccaccta 360
gccgtggtga accctgtcac ctacttgcaa cagcagct 398

<210> 2153
<211> 404
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H2

<400> 2153

cttgtatcag taccatcaat catcattcat cttagtagta taggcaccaa atcaaatcgt 60
cggcatacat tatctaactg caaaaaccat gaagctgggtg cttgtgggtt ttgctttcat 120
tgcttttagta tcaagtgttt cttgtacaca gacaggcggc tgcagctgtg gtcaacaaca 180
aagccatgag cagcaacatc atccacaaca acatcatcca caaaaacaac aacatcaacc 240
actaccacaa catcaccagc agcagcaaca ccaacaacaa caagttcaca tgcaaccaca 300
aaaacatcag caacaacaag gagttcatgt tcaacaacaa caactacaac cgcagcacca 360
acaacaacaa caacaacaac agcaccaaca acaacatcaa tgtg 404

<210> 2154

<211> 396
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-H3

 <400> 2154

 ggaaaatgtt gagagcacct caagagcaac ctcggaggcc tcgtaggaga gctgccccgt 60
 catctagcaa caccagcact agatcgcgac caggtgcttt aaccgcagca gatgcttggt 120
 catcagcaga ttcaagagca cacgaagcag tcaaccagct tttccagcca gtaaactctga 180
 ctcttgagca gcttgtcagg cataagctaa gcgaagggcg aagggttcaca tgccgcttgc 240
 ttggtgtgat tttagaagaa acagctccag aggagcttca gaaccatgtc acagtgaagc 300
 cttccgtggt ggaggttctc cttgagattg caaaattctg tgatgtgtat ttgatggagc 360
 gtattcttga tgatgagagt gagggaaagg ttttat 396

<210> 2155
 <211> 185
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-H4

 <400> 2155

 ccgaccaag cgacgcgtac tagctgcatt gaactctgct tcttatttgc aacaacaaca 60
 actaccattc agccggctgc ctgctgccta cccccagcaa tttcttccat tcaaccaact 120
 ggcagcattg aactctcctg cttattttaca gcagcaacaa ctactaccat tcagccagct 180
 agctg 185

<210> 2156
 <211> 423
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-038-Q1-K1-H5

 <400> 2156

 cgacatcgtc ccttcgtccc cagcagcaac cgataatccg ccggcggttga gatgttgggt 60
 tatcaggatc tcctatctgg cgacgagctc ctgtcggatt cattcaccta caaggagctc 120

gagaacggcg tcctgtggga ggtcagggga aagtgggtca cccaagggtcc tgttgatgtg 180
gacattgggtg ccaatccatc cgccgagggg ggtgaggacg aaagcgttga tgacacagct 240
gtgaagggtgg ttgatattgt tgacacattc cgtctacagg agcaacctcc ttttgacaag 300
aatcatcttg tgtcttacat caaaaaatac atcaagaatc tctactgctgt gttggagcca 360
gagaaagcgg atgagttcaa aaaggggtgc gaggggtgcaa ccaagtttct ncttagcaag 420
ctg 423

<210> 2157
<211> 428
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H7

<400> 2157

ggaagaccga agaccgagcc gtgcgggggc tcgggacggg aacgggacag gaccccaggt 60
ctcagatcct tcctgcccgc ccgcccgtgc ccgtcgacgc gtcgttcttg ccggccgcgc 120
ctcacctccg ccctctccta ctccaggggg atcggatacg ccacaggctg cgcgatgggtg 180
ctgtgggtct tcggctacgg ctccctcatc tggaaccccg gtttcgactt cgacgacaaa 240
atcctcggct tcatcaaggg ctacaagcgc acctttaatc tcgcttgcat tgaccacaga 300
ggcacaccgg agcatccggc gaggacctgc acgcttgaaa ccgacgacga ggccatatgc 360
tggggaattg catattgtgt caaggggtgt ccagaaaaag agctaaaagc aatgcagtac 420
ttggagag 428

<210> 2158
<211> 432
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-H8

<400> 2158

acccacgcgt ccgcttacca agcaggatgat ctgcaagtga gccaaagtgc atgtactcat 60
aaaccaggag ccgttgatct ccatctgcac aatagcccac caaattgact aagtttggat 120
ggtgcaataa gctgagcatc aggacctcaa ctaggaactc tctgttgctt tgatacccat 180

tcaggctctag ttgcttgaca gcaacaagct gttcacgcaa accggaaaca agtcagccac 240
 taatgactgt agatgaatta gcaagcttgt gtatacgtag aacgtttgaa tggttttttt 300
 ctgtgtggtg tgtacctgtc cgtttttcaag cctgcccttg tataccctgc cgaatcccc 360
 ttctccgaga aggcaagtcag agcgggaagtt tttcgtggcc gtggctagct cacggaacgt 420
 gaatgctttt gc 432

<210> 2159
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A1

<400> 2159

cctggtttag ttgatcgcat tgttgtttca aataaatcag tagcgaaggt ctacatcagg 60
 aattcacctc atccaaagag ccaaggccaa gatagtata tccatattac taccactgat 120
 gctccaggca agcctgctcc cagcagatgc aagtattact tcaatattgg tagtgttgat 180
 ttgtttgaag agaagttaga ggaagcccag gaagctttgg gaatagatcc acatgatttt 240
 gtcccagtaa cttatgttgc tgaagtaa at tgggtccaag aagttatgag gtttgccca 300
 acagcattga ttattggtct attatatttc acgggaaaaa ggatgcagag tggtttcaat 360
 attggagggtg gtgctggcaa aggaagagga ggtattttca acattggaaa agctacagt 420
 atga 424

<210> 2160
 <211> 360
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A11

<400> 2160

gaccaacaag caacatagaa agtggaatcc agtagcatca acagagcatc aatggcgagc 60
 aagatattat cctccttat gctccttgct ctttctgcat gtgttgctaa cgcgacaatt 120
 ttacctcaat gtcacaagc ttctatagct tcccttcttc ccccataoct ttcattcaatg 180
 atagcttcag tatgtgaaaa ccagctctt cagccctata cgctccaaca agcaatcgca 240

gcaagcaaca tacctttatc acccttggtg attcaacaat cgccagccct atctatggtg 300
cagtcattgc tacaaccat cagggcacag cagctgcagc aactcgggct acctgtgac 360

<210> 2161
<211> 443
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-039-Q1-K1-A12

<400> 2161

aagaatgtct tcattctctgc catatgattt gctacgtgca tggaaacgct gttccctcgt 60
tttctggatg acctcaagac ttctgctcag gagcaaactg actttatgat ccatgaagac 120
gatgaaactg ctctgggtat gatggatgaa gatgtcagat ctgtggtgca ggaaggata 180
acaaaactgt tatctggact taggaccggg cttgatctgt tggcaaccga gtttgatcaa 240
tcacctgac aagcagagaa agggattctg tgtagcttag ctgacatcga ctgggtagct 300
aatctgtcga ccaagattga gatgacgcat gcctttgttt ctggctggtc agaaatctcg 360
tgccatattc ttccagtgtg tcaggacagc aagtatagct caggcttggtg ggctgtcaag 420
gcaaagctta tcgaagtgc tgg 443

<210> 2162
<211> 426
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-039-Q1-K1-A2

<400> 2162

ttttgagcat tcagaaacac accaagctaa gcacattagc aacaaccta caacaatggc 60
taccaagata ttatccctcc ttgcgcttct tgcgcttttt gcgagcgcaa caaatgcgtt 120
cattattcca caatgctcac ttgctccaag ttccattatt acacagttcc tcccaccagt 180
tacttcaatg ggcttcgaac acccagctgt gcaagcctat aggctacaac aagcaattgc 240
ggcgagcgtc ttacaacaac caatttccca gttgcaacaa caatccttgg cacatctaac 300
aatacaaacc atcgcaacgc aacagcaaca acaattccta ccagcaactga gccacctagc 360

catggtgaac cctgccgnet acttgcaaca gcagttgctt gcatcaaacc cacttgctct 420
ggcaaa 426

<210> 2163
<211> 425
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-038-Q1-K1-G7

<400> 2163

atctcctcgc atttcttccc atccgatccc cccttcgcaa ccaaaacccc aactcgcccc 60
ccgggaagaa gccgaaggcg gagaagcggg tccccgctgg caagtccgct gccaaaggaag 120
gcggcgaggg caagagggggc aagaagaagg gcaagaagag cgtggagacc tacaagatct 180
acatcttcaa ggtgctgaag caggtgcacc cggacattgg catctcctcc aaggccatgt 240
ccatcatgaa ctcttcatt aacgatattc tcgagaagct cgctgctgag gccgccaagc 300
tcgcgcgcta taacaagaag cctaccatcn acctccgtga gatccagacc tccgtgcgcc 360
tcgtccttcc cggggagctc gccaaacacg ccgtctccga gggcaccaag gccgtcacca 420
agttc 425

<210> 2164
<211> 379
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-038-Q1-K1-F2

<400> 2164

gcctagcaat tagctcatcg actccagatt ggagaactcg acaccatgaa ggtgctgagc 60
ggtgcccttg ctctcctggc gctcgtgctg agcgccgctt ccagtacaag cggcggctgt 120
ggctgccaga caccaccgtt tcattctaccg cctccgttct atatgccgnc tncgttctat 180
ctgccgncgc agcagcagcc gcagccatgg caatacccca ctcaaccacc gcagctaagc 240
ccgtgccagc agttcggatc ctgcggcgctc ggcagcgctc gcagcccgtt cctgggccaa 300
tgcgtcgagt tcctgaggca ccagtgaac ccggcgggcga cgccctacgg ctgcgccag 360

tgccaggcgc tgcagcagc

379

<210> 2165

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F3

<400> 2165

agggtgctggg cgacaagggtg gagaagggtg tgggtctccga ccgcgtgggtg gactgcccgt 60
gctgcctggt gaccggcgag tacggttggg ccgccaacat ggagcggatc atgaaagccc 120
aggcgtgag ggactccagc atgtctgggt acatgtcctc caagaagacg atggagatca 180
accccgagaa cgccatcatg gaggagctcc gcaagcgtgc cgaggctgac aagaacgaca 240
agtccgttaa ggaccttgct atgtctgtgt tcgagacggc gctgctcact tctggcttta 300
gcctcgacga tcccaacacc tttggcagcc gcatccaccg catgctcaag ctgggcctga 360
gcatcgacga ggacgaggaa gctccggagg ctgacaccga catgcccc 409

<210> 2166

<211> 311

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F4

<400> 2166

gagaccaaca agcaacatag aaagtggaat ccagtagcaa caacagagca acaatggcga 60
ccaggatatt ttccctcctt atgtctcctg ctctttctgc atgtgttgct aacgcgacaa 120
ttttccctca atgtcacaa gctcctatag cttcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcagcccta taggctcaa caagcaatcg 240
cagcaagcaa cataccttta tcacccttgt tgtttcaaca atcgccagcc ctatctttgg 300
tgcagtcatt g 311

<210> 2167

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F5

<400> 2167

catatttgag tgcaaagttt acagagaaaa ctggcggtc aacttatgaa agcaaaagga 60
gactcatggg ggcgtacttc agcaagaaaa ggcttgtaa cagaggaggc tggctgttgc 120
agtgataatg acgaggctca tattggaag cttgaaaaca agaagacca tctccaatct 180
aaacttacgg aggaggtaaa agaaaacaca gtcctccagg caaattdaga aaggcgaaaa 240
gcagcactac atgagcgctg tgtagcactt gaaaaagaag tggaaaattt acgagaccag 300
ttgcagaaag agagaaattt gaaggcttca ttggagtctg ggtaaatgaa tatgcgaaga 360
ggacaagtgt cttcccatc aacgatagac accaagacta aagctgatct 410

<210> 2168

<211> 404

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-F7

<400> 2168

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tgctctctctg gcgctcgctg cgagcgccgn ctncagtaca agcggcggtt gtggctgcca 120
gacaccaccg tttcatctac cgccttcgtt ctatatgccg cctccgttct atctgccgcc 180
gcagcagcag ccgcagccat ggcaataccc cactcaacca ccgcagctaa gcccgtgcca 240
gcagttcgga tcttgccggc tcggcagcgt cggcagcccc ttccttgggc cagtgcgtcg 300
agttctctgag gcaccagtgc agcccgccgg cgacgcccc aagggtggcc acagtgccag 360
gcgctgcage agcagtgtg gcaccagatc aggcaggtgg agcc 404

<210> 2169

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F8

<400> 2169

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ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaac agcagttgct tgcacaaac ccacttgctc 420
tggcaaacgt aa 432

<210> 2170

<211> 321

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G1

<400> 2170

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agtggatatg agaataagac atcatggcct gaggtggtgg gcatgtccat caaggaggca 120
agagagatca ttcttaaaga catgcccaac gctaacattc aaggtctacc ggttggtctg 180
cttgtgacct aagactttcg ccctgatcga gttcgcactc tcgctgatat tgttgccag 240
actccaacag ttggctgaca aggatatgcc ctatctatag gccgaataaa caaagcctac 300
tcttatgtat catggctaata a 321

<210> 2171

<211> 446

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-G10

<400> 2171

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ctaccaagat attatccctc tttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctccctccag 180

ttacttcaat gggcttcgaa caccagctg tgcaagccta caggctacaa caagcgcttg 240
 cggcgagcgt cttacaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
 ccatacaaac catcgcaacg caacagcaac aacaatttct accagcactg agccaactag 360
 ctgtggtgaa ccctgtcgcc tacttgcaac agcagttgct tgcacccaac ccacttggtc 420
 tggcnacata gttgcatacc aacaac 446

<210> 2172

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G12

<400> 2172

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 cgcaatgctc gcaagctcct atagcttccc ttcttccccc gtacctctca ccagcggtgt 120
 cttcggtatg tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg 180
 gcatcttacc tttatcacc ttgttctcc aacaatcatc agccctatta catcagttac 240
 ctttggtgca tttattggca caaaacatca gggcacaaca actaccacaa cttgtgctag 300
 caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat 360
 tgaactgctg ttcttaattg caacaacatc tactaccatt cagccagcta cctgctgcct 420

<210> 2173

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G2

<400> 2173

gtcaaaagtG ttgggtcatc tattgcatg catattgttg cggcaaagcc attattctga 60
 tcggaagaac tggtttctgc ttcggcttta gaaaatgagc gtgaaatact tcgaaactcag 120
 gcccaaagtt cagggaaatc ccaaattggc atggataaga tggtggaagg acgattgagg 180
 aagtactttg aggaagttgt gctcatggag caaaaatatg ttttaaatga cagcactaac 240
 attaagaccg tgctgaatga cttgtcgaaa gaagttgggt ctaaagtaac aatcggtaac 300

ttcatcagaa tggaagttgg cgaaaggatt gagagaactg aagccgctga tggtttaaaa 360
 gttgctggtg gcgctatgta gattccaagc agagatggtt cgaacgagat cattaggatc 420
 tatatg 426

<210> 2174
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G3

<400> 2174

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 gtatccctcc ttgcgcttct tgcccttttt gtgagtgcaa caaatgcgtt cattattcca 120
 caatgctcac ttgctccgag tgccattatt ccacagttcc tccctccagt tacttcaatg 180
 ggcttcgaac acccagctgt gcaagcctat aggtacaac aagcgcttgc ggcgagcgtc 240
 ttagaacaac caattgcccc attacaacaa caatccttgg cacatgtaac catacaaacc 300
 atcgcaacgc atcagcaaca agcactgagc cacctagccg tggatgaacc tatcagctac 360
 ttgcaacaac agctgcttgc atccaaccca cttgctttgg caaacgtagc tgcataccat 420
 caacaa 426

<210> 2175
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-038-Q1-K1-G5

<400> 2175

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 cagctgcttg catccaaccc acttgccttg gcgaacgtag ctgcatacca gcaacaacaa 120
 cagctgcaac aggttatgcc agtgctcagt caactagcca tggatgaacc tgacggctac 180
 ctacaactac tgtcatctag cccgctcgcg gtgggcaatg cacctacgta cctactacaa 240
 cagttgctgc aacaaattgt accagctctg actcagctag ctgtggcaaa ccctgctgcc 300
 tacttacaac agttgcttcc attcaaccaa ctggctgtgt caaactctgc tgcgtaccta 360

caacagcgac aacagttact taatccattg gcagtggcta acccattggg cgctaccttn 420
ctgcagcag 429

<210> 2176
<211> 411
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-G6

<400> 2176

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattgtgcgg 60
tccttatgct ccttgggtctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcattcttac 240
ctttatcacc cttgttcctc caacaatcat cagccctatt acatcagtta cctttgggtgc 300
atattattggc acaaaacatc aaggcacaac aactacaaca acttgtgcta gcaaaccttg 360
ctgectactc tcagcaacag cagtttcttc cattcaacca actagctgca t 411

<210> 2177
<211> 403
<212> DNA
<213> Zea mays

<223> * unsure at all n locations
<223> Clone ID: LIB3061-038-Q1-K1-F12

<400> 2177

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tatgtctctt ggtctttctg caagtgttgc taccgcaacc attttccac aatgttcaca 120
agctcctata gtttcccttc ttccccata cctctcacca gcgggtgtctt caatgtgtga 180
aaceccaatt gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt 240
atcacccttg ttcttccaac aaccgtcagc cctattacag cagttacctt tgggtccattt 300
ggtggcacia aacatcangg cacaacaact acaacaactn gtgctagcan accttgctgc 360
atactctcag caacatcaag ttcttccatt caaccaaact gct 403

<210> 2178
 <211> 270
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D9

<400> 2178

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gccagctagc tgggtgtgagc cctgctacct tcttgacaca accacggttg ttgccgggggt 60
accagcacgc tgcgcctaac gctggcacc tcttacaact gcaacaattg ctgccattca 120
accaacttgc tttgacaaac ccagcagcat tctaccaaca acccatcatt ggtgggtgccc 180
tcttttagat ttcttatgag ttatagttca ataataaagt tttttgtctg atgtttgtgg 240
cttcccagaa ataagaaagt acatttctag 270
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<210> 2179
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E1

<400> 2179

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tcttcccccg tacctctcac cagcgggtgtc ttcgggtatgt gaaaacccaa ttcttcaacc 180
ctacaggatc caacaggcaa tcacagctgg catcttacct ttatcaccct tgttcctcca 240
acaatcatca gccctattac atcagttacc tttgggtgcat ttattggcac aaaacatcag 300
ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct gcctactctc agcaacagca 360
gtttcttcca ttcaaccaac tagctgcatt gaactctgct tcttatttgc aacaacaaca 420
acta 424
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<210> 2180
 <211> 366
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E10

<400> 2180

cccacgcgta cgggttggtc tcttctcccc ctgcggttcg ggttcggggt cgtgaggggc 60
ttcgggtgttc ggtttggtgg gtgagcggat cgagatggcg gcgtcagatg ttgagtaccg 120
atgcttcgtc ggcggcctcg cctggggccac ggacgaccac tctctacaca acgccttcag 180
cacctacggc gaggtcctcg agtccaagat catcctcgat cgggagacgc agaggttccg 240
cggcttcggc ttagtcacct tctccacgga ggaggcgatg cggaacgcca tcgagggcat 300
gaacggcacg gagctggacg gccgtaacat caccgtcaac gagggcccagt cccgctgatg 360
tcgtgg 366

<210> 2181

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E11

<400> 2181

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agatgaggag tctgacgatg aaggcgagga cgaggaggaa gagaagacgt catcggcgaa 120
gaagctgtgg cgtttctcctca tcacatgatt tatttatctt tgctgtacga taaaaaaaaat 180
agcacggcta actgtagggt ctatatgatg gtaggaggcc acttaggcat ccaaagctct 240
gctagtttca ttggctttgt catggcgtgt cctctggtgt gtagtagagg tggaagaagg 300
tactggtttg gttgtgtgct tcaggtgttg tgagtagcgc ggtggctttg gaaggcgctg 360
tggactgtct gtccccacc tactaccacc catggctttt ttttcttcc tgtttatct 419

<210> 2182

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E12

<400> 2182

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ttgattcaac actcgacaac cctatctacg ttgcagctca ttgttacaaa ccatctagtc 120

acaacgcctg caccaactcg tgctacctgt gaacaaccaa gtagatcttg ctaacctttc 180
 tgcttactct gagcagcaac aatctcttct attcaaccaa ctgtctacac tgaacctctg 240
 tgcttatttg catcatcaac tattaccatt gaatcatcta gctactgtat actctcagca 300
 actacaactt cttccatgta accaattggg cacactgaac cccactgctt atttgcagca 360
 tcaaatacta ctaccatgta gccagctagc tgcagcaaac cgtgcttcct tcttttacac 419

<210> 2183
 <211> 410
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E3

<400> 2183

ggctaccaag atattagccc tccttgcgct tcttgccctt tttgtgagcg caacaaatgc 60
 gttcattatt ccacaatgct cacttgctcc tagtgccatt attccacagt tcctcccacc 120
 agttacttca atgggcttcg aacacctagc tgtgcaagcc aacatgcaac aacaagcgct 180
 tgcggcgagc gtcttacaac aaccaattgc ccaattgcaa caacaatcct tgccacatct 240
 aacaatacaa gccatcacia cgcaacagca acaacagttc ctaccagcac tgagccacct 300
 agccatgggtg aaccctgccg cctacttgca agagcagctg cttgcatcca acccacttgc 360
 tctggcgaac gtagttgcaa accagcaaca acaacagcta caacagtttc 410

<210> 2184
 <211> 278
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E4

<400> 2184

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 gcggcctgca gctgcagcag ccaggtcctt gcccttgcaa cgcagctgcc ggcggtgtct 120
 actactgagg aaactatgac tgataataat gtaatggagc cgtgactagc tactactcgc 180
 tagttactat acggcagata cgatgtacca tacatgggtg aggtagcatg actgatgacc 240
 atgaatgaaa ggaatattat aggaaaaaag atgaatgg 278

<210> 2185
<211> 422
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E5

<400> 2185

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ctgggttattg tctgtgctga gggttccctg gttctaactt acatgcacct gtgtgttgag 120
gattggaagt ggtggtggaa gtcattcttc tcactctggat cggtggcaat ctacattttc 180
ttgtactcca tcaactatct tgtttttgac ctcaaagct tgagtgggcc agtgtctgct 240
accctctaca tcggttactc actcttcatg gtgattgcta tcactgctggc aactggcaca 300
gttgggttta tttcttcatt ctgctttgtc cactatcttt tctcatcggg gaaagcagat 360
taagtttctt cctgctgagg attcaagtca ctcaattgag aggtgagcag aatggacagt 420
ga 422

<210> 2186
<211> 370
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E6

<400> 2186

ggcggcgcag atagcgcagc aactgacggc gatgtgcggc ctgcagcagc cgacggcagg 60
cccctacgct gctgccggcg gcgtcccca ctgaagaaac tatgcgctga agtatagccg 120
ctggctagct agctagttag gtcatttagc ggcatgatt gagtaataat gtgtcacgca 180
tcaccatggg tggcagggtc agcgtgagca atgacctgaa tgaacaattg aatgaacag 240
aaataataaa ccactatata taaagcatac ctatggagca taaatagaca caaagcatca 300
aagacactac aactacaaca acaaggggcg gccgatccta gggacceaat cttagctacc 360
cgtgcttgca 370

<210> 2187
<211> 391
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-E7

<400> 2187

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gcggagcatg atgtcaccaa tgggtcttgcc gagcatgatg tcgcaaatga tgatgccaca 120
atgtcactgc gacgccgtct cgcagattat gctgcaacag cagttaccat tcatgttcaa 180
cccaatggcc atgacgattc caccatggtt cttacagcaa ccctttgttg gtgctgcatt 240
ctagatagaa atatttgtgt tgtatogaat aatgagttga catgccaaaa caaaaacctg 300
atgcctacca ccaacaataa cttccattca accaactggc agcaattgaa ctatcctgct 360
tatttacagc agcaacaaac tactaccatt c 391

<210> 2188

<211> 414

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-E9

<400> 2188

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ctccttgctc tttcagcaag cgctgctacc tctactatta ttccacaatg ctcacaacaa 120
tacctctctc cggtgacagc cgcgggattt caacacccaa ctatacaatc ctacatgcta 180
catgaggcca tcgtagcaag catcttacgg tcattagcat taaccctcca acagccatat 240
gccctattgc aacaaccatc cttagtgcac ctgtatctcc aaagaatcgc gacacaacaa 300
ctacaacaac agttgctacc aacaatcaat caagtagttg cagcgaacct tgctgcttat 360
ctncagcaac aacaatntct tccattcaat caactagctg gngtgaaccc tgct 414

<210> 2189

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F1

<400> 2189

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cagaggagat gaagacgttc gaccctgggc cggctcttctt ccgccgggag tggaagcgca 120
actggccctt cctcacgggt ttccgcatca ccggattcat catcacgaag atgacggcca 180
acttcaccga ggaggatctc aagaactcca agttcgtcca ggaacacaag aagaagcact 240
gacgaaccag gtgaaggagt tgtcagaaac gcatgtttgg ccagccagtt ctgttatgct 300
tttgaatgaa aaatttagac ccttctttct cgtttcctta atcgaaatgc ttgcactcta 360
tgttccattt gtaatgtaat aagaggcaaa tggattgaac caacaacaat caacttctga 420
ttgaaa 426

<210> 2190

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F10

<400> 2190

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gtctttctgc aagtgttgct accgcaacca ttttcccaca atgctcacia gctcctatag 120
cttcccttct tccccatac ctctcaccag cgggtgtcttc aatgtgtgaa accccaattg 180
ttcaacccta caggatccaa caggcaatcg caacaggcat cttaccatta tcacccttgt 240
tcctccaaca accgtcagcc ctattacagc agttaccttt ggtccatttg gtggcacaaa 300
acatcaaggc acaacaacta caacaacttg tgctagcaaa ccttgctgca tactctcagc 360
aacatcagtt tcttccattc aaccaactgg ctgcattgaa ctctgctgct tatttgcaac 420
aacaattacc att 433

<210> 2191

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-F11

<400> 2191

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gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc 120
 tcctatagct tcccttcttc ccccgtaacct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcattcatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgcaac 428

<210> 2192

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D8

<400> 2192

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 atggaaatgt tttttggcag ctttctcagt gaatcagtat caccgcagaa ccttttcgga 120
 cacccggtatg ttgagaaatg cccattcctg aggaatatca atggagctac aaccttttcc 180
 ctgcgttctg ctttgccagt agctgttcaa ggaggcaagg gtccaatttt taaggaaggt 240
 ccaggtttta agcctgattc aagccttttc catggccgag atggaatagt tcccctttca 300
 gaaagatcat atgtatctga tgaaaccac attgagagca ttgatgtcag gactg 355

<210> 2193

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H9

<400> 2193

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 tcgcgacacc atgagctcca cggagtgcgg cggcggcggc ggcggcgcca agacgtcgtg 120
 gcctgaggtg gtcgggctga gcgtggagga cgccaagaag gtgatcctca aggacaagcc 180
 ggacgccgac atcgtggtgc tgcccgtcgg ctccgtggtg accgcggatt atcgccctaa 240

ccgtgtccgc atcttcgtcg acatcgtcgc ccagacgccc cacatcggct gataatatat 300
aagctagccg ctatttcctt tccttgcccc agaacttgaa ataaatatat atacgatgaa 360
ataacgcggg catgccgaat aatggatgtg tgaattctca ctaattaagt aatgcattaa 420
taaacgtatt cc 432

<210> 2194

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-021-Q1-K1-A1

<400> 2194

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tcgacgcagg cggcgacggc ggcgcgccga gatgaaggct tccgtgaaga cgctcaaggg 120
atctagcttc cagatcgaag tggagcccac cgacaagggt gctgctgtga aaaagggtcat 180
agagaatatg caagagcagg ctctctatcc agctgaccaa caagtcctta tacatcaagg 240
aaagggtgctc agcgatgaca ccacattaga ggaaaatcaa gtgactgaga ataatttcct 300
tggtataatg ctcagacaga acaagggtatc atcaagtgca gcaccggcta agacaactgc 360
gaatcaggca cctnctactc agacagtgcc tgttggtcca cctcaaactg cagcagcccc 420
agctgcacca gcaccta 437

<210> 2195

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A10

<400> 2195

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tgtcttgccc atattggagt ctttggttaa tggggcaaac aaggcatcta gacggactga 120
acatggcagg accccaagtg ttctcgttct actaccaaca agagagctgg ccaatcaggc 180
gcacgctgac tttgagtttt atggtgcaac atttgggctc tctgcatgtt gtgtgtatgg 240

gggatcacct tatcgtcctc aagaaatggc attgagaaga ggtgtggata ttgttgttgg 300
aactcctggg cgtgtcaagg atttcattgt taaaggaact ctcaatttga aatgcttgaa 360
attccgtgtc cttgatgaag ctgatgagat gctaaacatg ggttttgttg atgatgtcga 420
gctcattctt g 431

<210> 2196

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A11

<400> 2196

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ggtgggtcagc aacaggtggt ccctagaggt ggtcgtggct atcgctatcc tactggacgt 120
ggaatgcctg atcctggcat gcacagtgtt ggtgctgtga tgccaccttc atatgagatg 180
ggaggggatgc caatgagaga agctgcccc caacctgttc caattggggc gctagccact 240
gcacttgcta acgccccacc agatcagcag agacttatgc ttggtgagaa cctgtatcct 300
cttgttgaac agctggaacg tgagcaggct gccaaaggtca ctggcatgct tttggagatg 360
gatcagacgg aggttcttca cctgctggag tgcagagatg ctctgaaag 409

<210> 2197

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A2

<400> 2197

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tatgtcctt ggtctttctg caagtgtgc tacggcgacc attttccac aatgctcaca 120
agctcctata gcttcccttc tcccccgta cctctcacca acggtgtctt cggtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
atcacccttg ttctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360

ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
 ttatttgcaa c 431

<210> 2198

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A3

<400> 2198

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 atgcttgctt atgctccttg gtctatctgc aagtgtgct accgcgacca ttttgccgca 120
 atgctcgcaa gtcctatag cttatcttct tacaacgtac atttgatcag cggtgtatta 180
 tgactgtgaa aaccctaatta ttcaacccta caggatccaa caagcaatct cagctggcat 240
 attagctata tcacgcattt gcctccaaca attatcagcc ctattacatc aagtacctac 300
 ggcgcattcta ttggcacata acattacggc acatcaacta caacaacttg tgctagcaaa 360
 acttgctgtg tactatcatc aacagcagaa tcttgcatc taccaactaa ctgca 415

<210> 2199

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-A4

<400> 2199

atccaatcca gatcagcaaa gcggcagtc gtagagagga tcgtcgaaca gaacagcatg 60
 aagatgggtca tcgttctcgt cgtgtgcctg gctctgtcag ctgccagcgc ctctgcaatg 120
 cagatgcctt gccctgcgc ggggctgcag ggcttgtag gcgctggcgc cggcctgacg 180
 acgatgatgg gcgccggcgg gctgtacccc tacgcggagt acctgaggca gccgcagtcg 240
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 ccgctccggc acagtgtgc cagcagcaga tgaggatgat ggacgtgcag tccgtcgcgc 360
 agcagctgca gatgatgatg cagcttgagc gtgccgctgc cgccagcagc agcctgtacg 420
 agccagctct gatgc 435

<210> 2200
 <211> 333
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-021-Q1-K1-A5

 <400> 2200

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 accatgcacc aagggctatc agcatatgct gctaccgtga gcatcttgcg ctaatgggtca 120
 gcggatcata tacgttcatt atttcacaat gatcacttac tacaagtgtc attattacac 180
 agataactcc caccagttac tccaacggga ttcaaacagc cagcatagca agcctataag 240
 ctacatcaag caattgctgc caagcgtctt acaacaccca atattccagt tgcaacaacg 300
 atccttttga catctaaca tacagaccat cgc 333

<210> 2201
 <211> 256
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-021-Q1-K1-A6

 <400> 2201

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 gcgacgcctt cgggtactac ggcaccatcg tctccgtcaa ggtgattaat gatcatgctg 120
 tcaaaggcaa gtgttatggt tctgntactt tactcaccc cagagctgct gagcaagcaa 180
 ttgcgggcat ggacggtaag aaattatgca accgtattgc tcgagtaaata gaagtgcgta 240
 caagaggccc ccggga 256

<210> 2202
 <211> 344
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-021-Q1-K1-B1

 <400> 2202

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 atgttcggcc gacgtatcat caattnttga ctgatttttg caaggagctt actggcatac 120
 aacagattca ggtggacaga ggtgtgcctc taggtgaagc cttactcatg cacgataaat 180
 ggctagagga caagggcatc aagaacacaa actttgctat tgtgacctgg tctaactggg 240
 actgccgtat aatgctggag tcggaatgca gatttaagag aatcaggaag ccccttatt 300
 ttaacaggtg gatcaacttg agggtagcgt tccaggaagt gtac 344

<210> 2203

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B10

<400> 2203

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 gagtccctct ctctggtggg cacgatgcgc ggccacaacg gcgaggtgac ggcgatcgcg 120
 accccgatcg acaactcgcc gttcatcgtc tcctcctccc gcgacaagtc cctgctggtg 180
 tgggacctga ccaaccgggt ccaactccacc ccggaatccg gcgccaccgc cgactacggc 240
 gtcccccttc gccgcctcac cggccactcc cacttcgtcc aggacgtcgt cctcagttcc 300
 gacggccagt tcgcccttcc cggtcctgg gatggagagc tccgcctctg ggacctctcc 360
 accggcctca ccaccgccg cttcgtcggc cacgagaagg atgt 404

<210> 2204

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B11

<400> 2204

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 ggtgctgac gttgcccttg ctctcctggc gctcgtcgcg agcgccgcct ccagtacaag 120
 cggcggctgt ggctgccaga caccaccgtt tcactaccg cctccgttct atatgcggcc 180
 tccgttctat ctgccgccgc agcagcagcc gcagccatgg caatacccca ctcaaccacc 240

gcagctaagc ccgtgccagc agttcggatc ctgcgggcgtc ggcagcgtcg gcagcccgtt 300
cctggggccag tgcgtcgagt tcctgaggca ccagtgcagc ccggcggcga cgccttacgg 360
ctcgccacag tgccaggcgc tgcagcagca gtgctgccac cag 403

<210> 2205

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-021-Q1-K1-B12

<400> 2205

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cacttttgat ggcactcacg gtgttagcac tgggaattcgt agcgtagtgg atgacaaagc 120
tggaatca aatgggtggtc tcaagagtga tccaatgtgc aatgcctgtg agatggctgt 180
ggatggatg cagaaccaac tggcccagaa caagacacag gagctcatcc tgacctacat 240
taatcagctt tgtgagcgtc ttccttctcc catgggagaa tcagccgtgg actgtgccag 300
tcttgggtcc atgcccagaca ttgcgttcac cattggaggc aagaagttca agctgaaacc 360
ggagcagtac attctgaagg tcggtgaagg acaagctgcc cagtgcattca gtggattcac 420
a 421

<210> 2206

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H8

<400> 2206

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ccatttagcc agctagctac tgctactct cagcaacaac aacttcttcc atttaaccaa 120
ttggccgcac tgaaccctgc cgctacctt caacagcaac aactgatttc atctagccct 180
ctcgtgtgg ttaatgcacc tacatacctg caacaacagt tgctgcaaca gattgtacca 240
gctctgactc agctagctgt ggcaaaccct gctgcctact tgcaacagct gcttccattc 300
aaccaactga ctgtgtcgaa ctctgctgctg tacctacaac agcgacaaca gttacttaat 360

ccactagcgg tggctaacc attggtcgct gacttcctac agcagcaaca attgctgcca 420
tacaaccagt tctctttgat gaaccctgc 449

<210> 2207
<211> 337
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G2

<400> 2207

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gggtgggagg atcgagatgg cggcgtcgga tgttgagtac cgctgcttcg tccgcggact 120
cgctggggcc acggacgacc acttactgca caacgccttc agcacctacg gcgaggtcct 180
cgagtccaag atcatcctcg atcgggagac gcagaggtcc cgcggcttcg gcttcgtcac 240
cttctccacg gaggacgca tgcggaacgc catcgacggc atgaacggca aggagctgga 300
cgcccgcaac atcacgtca acgaggcca gtcccg 337

<210> 2208
<211> 414
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G3

<400> 2208

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aagaaaaaga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaat 180
aaaagaaaaa aaaaaaagaa aagaaaaaaa aaaaaggggg ggggttttta agagaaccaa 240
gtttattaca ggagtggagg aaaataaaaa ttttttttaa ggggaacctt aattaaagat 300
agggggagat tttttaaaaa ttggatgggg ggaaaaacct gggggtccaa aaataaatgg 360
tcttgaaaaa taagcccttt ttgggggggg agggaaaacg aaaagggcc ccac 414

<210> 2209
<211> 445
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G4

<400> 2209

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cttgcttatg ctcccttggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cctttcttcc cccatacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt 240
acctttatca cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
gcatttggtg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taagaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc 420
tgctgcttat ttgcaacaac aacta 445

<210> 2210

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G5

<400> 2210

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccaacgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaacaac aacaact 447

<210> 2211

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G6

<400> 2211

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cttcctgatc cttctgcaag tgttgggtacc tgatccatct tccaacattg ctcacaagct 120
cctatagctt cccttatttc ccctacaccc tcaccaccgg tgacttgaat gtgtgaaaac 180
ccaattgttc aaccctacag gatccaacag gctatagcaa caggcatctt accataatca 240
cccttgatca tccatcatcc gtcagcccta ttacagcaga tacctgcggt ccattgggtg 300
gcacataaca tcacggcaca tcaactacca caacctgcgc tagctaacct tactgcatac 360
tgtcagctac atcaagcaat tgcattcaac caactggctg cattgaactc tgctgcttat 420
t 421

<210> 2212

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G8

<400> 2212

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agccaaaata ttgtgcttcc ttatgctcct tgatctttct gcaagtgtg ctaccgaaac 120
cattttgcc aatgctcac aagctcctat agcttccttt ctccccacat acctctcacc 180
agcgggtgact tcagtatgtg aaaaccaat tcttcaaccc tacaggatcc aacaggcaat 240
cgcagcaggc atcttacctt tatcacctc gtacctaca caaccgtcag ccctattaca 300
gcagctacct ttggcgcgtg tgacggcaca aaacatcaag gcacagcaac tacaacaact 360
tgtgctagga aaccttgctg cctactctca gcaacagca 399

<210> 2213

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G9

<400> 2213

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tattagecct ccttgcgctt cttgcccttt tagtgagcgc aacaaatgcg ttcattattc 120
cacagtgtc acttgctcct agtgccatta ttccacagtt cctcccacca gttacttcaa 180
tggtgcttga acatccagcc gtgcaagcct acaggctaca actagcgctt gcggcgagcg 240
cettacaaca accaattgcc caattgcaac aacaatcctt ggcacatcta accctacaaa 300
ccattgcaac gcaacaacaa caacaacaac agttttctgcc atcactgagc cacctagccg 360
tggtgaaccc tgtcacctac ttgcaacagc agc 393

<210> 2214
<211> 393
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H1

<400> 2214

acgagaaccc caagcacaag gtcaccgctg tccccgccga cgaagaagag atctgcggtg 60
ccactttcaa ggtggtggaa gggcttactg tcctgacggc gctgcaactga tcgatcatca 120
tcaggcggag gcgatgcgac gatacagaac tttgtacatg cgtggtgggt gtaacatagt 180
ggctggcaac aagccatgct catgcaaacc gatgaatcta tctctgtatc atgcatcgat 240
ctcggttgct tgctagtcca gactccagac tccagacatg gctatatata gctggtgcta 300
ataaatagga gtataatcgt catatcgatc ggttgcggtg ggaatgccaa tcaagtgtgt 360
aatctgttcc aaataacaaa cctatgttcc tcc 393

<210> 2215
<211> 324
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H10

<400> 2215

tatgctcgtt gctctttctg catgtgttgc taacacgacc atttctgatg agtactcaca 60
tgctcctata gacgcctta ttgcgatata ccattgatca ctcaccgctt tagattgtga 120
aatcccaggc cttctaaccc tacgagatcc aattatcaat ctaaccaggc acctaacctt 180

tatcacatct gttctttgaa caatcgccag ccctatcttt gatgcagcca ttggtacaaa 240
ccattagggt gcaacagact cggcaactcg tgctaccaga gatcattcaa gtagctttgg 300
caaacctttg ctgctactat tatc 324

<210> 2216

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H11

<400> 2216

acgatagctt cccttcttcc cccgtacctc ttaccatcgg ggtcttcggt atgggaaaac 60
cgagtctgta acccttacag gatccaacag gcaatcacag ctggcatctt acctttataa 120
cccttgttcc tgcaacaatc atcagcccta ttacatcagt tacctttggt gcatttattg 180
gcacataaca tcagggcaca acaactacaa caacttgtgc tagcaaacct tgctgcctac 240
tctcagcaac agcagtttct tccattcaac caactatctg cattgaactc tgcttcttat 300
ttgcaacaac aacaactacc attcagtcag ctacctgctg cctacccccca gcaatttctt 360
ccattcaacc aactggcagc attgaactct cctgcttatt tacagctgca acaactacta 420

<210> 2217

<211> 130

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H12

<400> 2217

ccccacaac acacaagcag cccataacac accagacacc cccagaccaa ccatcaacgc 60
aaaccacaaa aagacaaaac ccaccacaac aaccccatat acaccaacac agccatactc 120
accaagcaac 130

<210> 2218

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H2

<400> 2218

ggcgaggagg gcaggaagac cgaagaccga gccgtgcggg ggctcgggac gggaacggga 60
caggacccca aaatctcaga tccttcctgc ccgcccggcc gtgcccgtcg acgcgtcgtt 120
cttgccggcc gcgcctcacc tccgccctct cctcctccag ggggatcgga tacgccacag 180
gctgcgcat ggtgctgtgg gtcttcggct acggctccct catctggaac cccggcttcg 240
acttcgacga caaaatcctc ggcttcatca agggctacaa gcgcaccttt aatctcgctt 300
gcattgacca cagaggcaca ccggagcatc cggcgaggac ctgcacgctt gaaaccgacg 360
acgaggccat atgctgggga attgcatatt gtgtcaaggg tggtcacaaa aaagagctaa 420
aag 423

<210> 2219

<211> 379

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H3

<400> 2219

caactagcaa catagaaagc acaatagtgt accaacaatg gcagctaaaa tattttgcct 60
ccttatgctc cttgggtcttt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
acaagctcct atagcttccc ttcttcccc gtacctctca ccaacgggtgt cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcattctacc 240
tttatcacc ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgcctactct cagcaacag 379

<210> 2220

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H4

<400> 2220

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tgttttcgat ccttatgctc cttgctcttt ctgcatgtgt tgctaacgcg accatttttc 120
 ctcaatactc acaagctcct atagctgccc ttcttcccc ataccttcca tcaatgaccg 180
 ctttagtatg tgaaaacca gcccttcaac cctacaggat ccagcaagca atcgcaacaa 240
 gcaacttacc tttatcacac ctgttctttc aacaatcgcc agccctatct ttggtgcagt 300
 cattggtaca aaccatcagg gcagaacagt tgcagcaact cgtgctacca gtgatcagcc 360
 aagtagctct ggcaaacctt tccccctact ctcagcaaca acaatttctt ccattcaacc 420
 aactgtctat actgaaccct 440

<210> 2221

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-H5

<400> 2221

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 gcagatctcg tggaactaca actacgggcc cgcggggagg gccatcggct tcgacgggct 120
 cggggacccc ggcaggtggt cgcgggacgc cgtggtggcg ttcaaggcgg cgctctggtt 180
 ctggatgaac agcgtgcacg ggggtgtgcc gcaggggttc ggcgccacca ccagggccat 240
 caacggcgcc ctcgagtgcg gcgggaacaa ccccgaccag atgaacgcgc gcgtcggcta 300
 ctacaggcag tactgccgcc agctcggcgt cgaccccggg cccaacctca cctgctaggc 360
 taggcggcat c 371

<210> 2222

<211> 409

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-H7

<400> 2222

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 actcatagct ccttgtcttt ctgcaagtgc tgctcgggag catttaccgc aatgctcaca 120
 agctgctata gcttcccttc tcccccgat acctctcca acgagtcttc agtatgagaa 180

aatccaattc ttctacccta caggatccaa caggcaatcg cagcaggcat cttaccttta 240
tcacccttgt tcctacaaca atcatcagcc ctattacagc agttacctat ggtgcattga 300
ttggcacaaa acatcagggc acaacaacta caacaactcg tgctagtga ccttgctgcc 360
tactctcagc atcagctttt acctatggtg catttggaag cacanaaca 409

<210> 2223

<211> 300

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G12

<400> 2223

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aagccctcgg tggcgggctg aggctggacg gactgcgccg gctgacgaca gatggcgccg 120
gcggtgttac cctacgcgga tacctgagca gcgcagtga tcccgctcgc gcgggacctt 180
ctacgcgggt gtgggcagcc gacgccatgt ccaccgctcg gcaacatgct gcagcagcag 240
atgagatgat ggacgtgcag ccgtccgcac agctgagatg agatgcactt gagcgtgccg 300

<210> 2224

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E8

<400> 2224

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acgacgccga gctcaaggcc aaggccaagg ccaaggccga ggtctactac ggcgacgagg 120
cctgtcagct gtgcgcgcag ctctgtctga gggaagcagg cctccccaac ggctgtctgc 180
cgctggagga cctgacggag tgcggctacg tccaggagac cgggtacgtg tggctgaagc 240
agggcaggag ggtcgaccac gtcttcgga gcctcgacg cctcgtctcc tacggcgccg 300
agatcaccgg gtacgccgag aagggccgga tcaggaaggt gaaggggata aagaccaggg 360
agctcatgct gtgggtgccc gtcgaggaga tcgccgctct tgg 403

<210> 2225
 <211> 314
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-E9

 <400> 2225

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 attaaccctg cttgcgctta ttgcccttta tgagatcgca acaaatgcgt tcattattcc 120
 acaatgctca cttgctccta gtgccattat accacagttc ctccgaccag ttacttcaat 180
 gagcttcgaa caccttactg agcaagccta caggctacaa caagcgcttg cggctaacgt 240
 cttacaacaa ccaattaacc aattgcaaca acaattcttg gcacatttaa ccatacaaac 300
 cattgcaact caac 314

<210> 2226
 <211> 408
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-F1

 <400> 2226

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 ccaagatatt ttccctcctt atgctccttg ctctttctac atgtgttgct aacgcgacaa 120
 ttttccctca atgctcacia gctcctatag cttcccttct tccccatac cttccatcaa 180
 ttatagcttc agtatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg 240
 cagcaagcaa cataccttta tcgcccttgt tgtttcaaca atcaccagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcagggcac aacagctgca gcaactcgtg ctacctgtga 360
 tcaaccaagt agctctggca aacctttctc cctactctca gcaacaac 408

<210> 2227
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-F10

 <400> 2227

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gacattatcc ctcttgcg cttcttgccct ttttgtgagt gcaacaaatg cgttcattat 120
tccacaatgc tcaattgctc cgagtgccat tattccacag ttcctccctc cagttacttc 180
aatgggcttc gaacacccag ctgtgcaagc ctataggcta caacaagcgc ttgcggcgag 240
cgtcttagaa caaccaattg cccaattaca acaacaatcc ttggcacatc taaccataca 300
aaccatcgca acgcagcagc aacaagcact gagccaccta gccgtggtga accctatcgc 360
ctacttgcaa caacagctgc ttgcatccaa cccacttgct ttggcaaacg tagctgcat 419

<210> 2228
<211> 419
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F11

<400> 2228

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tcgacctccg tccgggacctg cctgtcgcgc tgctatgggtg ctcaagtcgg gcgctgccct 120
ctccgtccag cagtctggcg ctgaagtccc caacctcctc tctgctgaag ccctccgctc 180
gccgagctcc gtacacgcgc gcccacatctc tgctggcgcc ctgatcttca gtcaccccc 240
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caagagttga gttgatccca acatgaagat gatgaatgaa cctgaagctt ggatgatctg 360
gtcaagcacc agaatggaag atcctcatca agtggctcgtc aattaacaac actaacata 419

<210> 2229
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F12

<400> 2229

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gctccttggt ctttctgcaa gtgctgctac ggcgaccatt tccccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180

cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 360
 ctctcagcaa caacagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgaacaac aacaactacc 440

<210> 2230
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F3

<400> 2230

caaacaacaa acttattcat gatttgtcat agttctgggt agtacgcaca cacaacacaa 60
 ccggtccatt attaaaccaa cactgacacg aacagcagat acttcgacaa cctccatattg 120
 gagagggcac cagacgacgc aggcacatcg gcagcttaaa cgacccatga cttactgacc 180
 accacggaga cggagcaciaa ggtggagggt gctctccttt tggatgttgt agtctgctag 240
 ggtgcgggcca tcttccagct gtttgccggc gaagatcaga cgctgctggg cgggggggat 300
 gccctccttg tcttgatct tcgccttcac attgtcgatg gtgtccgagc tctcaacctc 360
 cagggttatg gtttttccag tcagggtctt cacaagatc tgcataccac ccct 414

<210> 2231
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F4

<400> 2231

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 ggtggtcctc gaacgaagat gttggcgggtg ttcagcgggc aggtggtgga ggtgccggcg 120
 gagctggtgg cggcgggcag ccggacgccg tcgccaaga cgaaggcgtc tcagctcgtg 180
 gggcgcttcc tggccgcgtc cgagccggcc gtgtccgtgc agctcggcga ccacggccac 240
 ctgcctact ccacaccaa ccaggcgctc ctccgcccc ggtcgttgcg ggccaaggac 300

gaggtgttct gcctgttcga aggggtgctg gacaacctgt gtctgctgag ccagcagcac 360
 gggctgtcaa gcaagggcgc caacgaggtg ctctcgtca tcgaggccta caagacgctg 420
 cgcg 424

<210> 2232

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F5

<400> 2232

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 caagtcaggg cagtcaagca cttacaagaa gaacggaaaa cctgctgccca ttcgctatgg 120
 aactggttcc attgctggtt ttttcagtga ggatagcggtt acattaggtg atctggttgt 180
 gaaggatcag gaatttattg aagctacaaa ggagccaggg cttaccttca tggttgcaaa 240
 atttgatggc attcttgggc taggctttca agaaatctct gttgggaatg caacaccagt 300
 gtggtataac atggtgaaac aaggtctcat cagcgaccct gttttctctt tctggtttaa 360
 ccgacatgct gatgaaggag aaggtggtga aattgcgttt ggtggaatgg attctagcca 420
 ctacaagggc gatcacacgt t 441

<210> 2233

<211> 427

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-F6

<400> 2233

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 gatggcatta tacctgcaaa ggagcatgcc aagtttttga tccataccac aaacaagtac 120
 agatttattg accaggaag caatctaaag ggcaaggaat tcaacttgac aatgcactgg 180
 cacattatgc caaagactgg caaaatgttt gcagataaga tagtaatgac aggctatcgt 240
 ctccctgagc tatacagata gtcagataga tcatggacag gactaagtgg cctgcaagaa 300

gtgttagtgg cagtggcata attgatcctg agcgtnntgt tctaatactaa gtggagcatg 360
 taaccttata agctngtact taagctgaac caggcanaac anagttgtaa tttgagagga 420
 tatgtat 427

<210> 2234

<211> 80

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F7

<400> 2234

atttcttatg agttatagtt caataataaa gttttttgtc tgatgtttgt ggcttcccag 60
 aaataagaaa gtacatttct 80

<210> 2235

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F8

<400> 2235

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 ggcggtcagc cgaggagccg gtgggtgtgca gccccgcgag ctcgctgggtg gccgtcatgg 180
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 gagatctggc agagtgtttg ctgtttcctc ctcgatcgca tcttgctgctg taatgagaga 360
 agaacatgag ctcttgtcac ggaccgagcg ctttcgggtc tcaaaaaaca ttctggttag 420
 catcatagta tgtatgtgt 439

<210> 2236

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-F9

<400> 2236

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tgcttcctta tgctccttgg tctttctgca agtgttgcta ccgcaaccat tttcccacaa 120
tgctcacaag ctctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca 180
atgtgtgaaa cccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc 240
ttaccattat cacccttgtt cctccaacaa cgtcagccc tattacagca gttacctttg 300
gtccatttgg tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgcat actctcagca acatcagttt ct 392

<210> 2237

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G1

<400> 2237

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caagatatta tccctctttg cgcttcttgc cctttttgtg agcgcaacaa atgcgttcat 120
tattccacaa tgctcacttg ctcttagtgc cattattcca cagttcctcc ctccagttac 180
ttcaatgggc ttccaacacc cagctgtgca agcctacagg ctacaacaag cgcttgcggc 240
gagcgtctta caacaaccaa ttgcccaatt acaacaacaa tcttggcac atctaaccat 300
aaaaccatc gcaacgcaac agcaacaaca atttctacca gcaactgagcc aactagctgt 360
ggtgaaccct gtcgctact tgcaacagca g 391

<210> 2238

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G10

<400> 2238

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cgtgctcgtc gtgtccctgg ctctgtcagc tgccagcgcc tctgcaatgc agatgccttg 120

ccctgcgcg gagctgcagg gcttgtagcg cgctggcgcc ggctgacga cgaatgatggg 180
cgccggcggg ctgtaccctt acgcggagta cctgaggcag ccgcagtgca gcccgctggc 240
ggcgggcgccc tactacgccg ggtgtgggca gacgagcgcc atgtaccagc cgctccggca 300
acagtgtctgc cagcagcaga tgaggatgat ggacgtgcag tccgtcgcgc agcagctgca 360
gatgatgatg cagcttgagc gtg 383

<210> 2239

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-G11

<400> 2239

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catttggttg caaaaacat cagggcacia caactacaac aactcgtgct agcaaactt 120
gctgcctact ctgagcaaca acagtttctg ccattcaacc aactagctgc attgaactct 180
gctgcttatt tgcagcaaca acaactacta ccattcagcc agctagctgc tgcctacccc 240
cggcaatttc ttccattcaa ccaactggca gcattgaact ctcatgctta tgtacaacia 300
caacaactac taccattcag ccagctagct gctgcgagcc ctgctgcctt attgacacag 360
caacattcgt tgccagttta cctgcacact gcgcctaacg ttggcaccct cttacaactt 420
gcacia 426

<210> 2240

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E7

<400> 2240

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ttcaacccta caggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 120
tcctccaaca atcatcagcc ctattacagc agttacctt ggtgcattta ttggcacaaa 180
acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 240

aacagcagtt tcttccattc aaccaactag ctgcattgaa ctctgcttct tatttgcaac 300
aacaacaact accattcagc cagctacctg ttgcctaccc ccaacaattt cttccattca 360
accaactggc agcattgaac tctcctgctt atttacagca gcaacaacta ctaccattca 420
gccagctagc tgggtgtgagc cctgc 445

<210> 2241

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C2

<400> 2241

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ctacttcttc tgcggctacc cgggccactg cgctgccggc cagaaggtgg acatccgcgt 120
cgctctctct gctgccccct cgcgcgcacc gtcgcgcacc ccctccggct ccaagccctc 180
cggggggcgc acggccgcgc cgctcgccga ccctaacgcc gcgccgaagg ccctctccgc 240
cagctccgta gccgcggctg tcgccacgtc cctgctctcc ctggccgcgg ccgtgctggc 300
atgatcactt gatcaggatc gtgtagtgtt ggccagggga cggcgccttt gtgaattgtg 360
agagctcgta ctgtgtctgt gtgactgtct ctgtggccgt atgagcattt agccctggat 420
ctgcgtttg 429

<210> 2242

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-C3

<400> 2242

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ccgcattatg ctctttggtc tttctgcaag tgctgctacg gcgagcattt tcccgcgaatg 120
ctcacaagct cctatagctt cccttcttcc ccatacctc tcaccagcga tgtcttcagt 180
atgtgaaaat ccaattcttc taccctacag gatccaacag gcaatgcag caggcatctt 240
acctttatca cccttgttcc tccaacaatc atcagcccta ttacagcagt tacctttggg 300

gcattttattg gcacaaaaca tcagggcaca acaactacaa caactcgtgc tagcaaacct 360
 tgctgcctac tctcagcaac agcagttacc tttggtgcat ntgttggcac aaaacatc 418

<210> 2243

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C4

<400> 2243

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 aggttttgag tggcttaaat ggcattctcg gggacatttg ataatcgag gatcagagga 120
 ttgtaatgta tggatgtgga atgccgacca taatgccatt ctgaatacct ttgctggaca 180
 tagtaacaca gtgacatgtg gtgattttac tccagatggt aaacttatat gcaactggatc 240
 ggatgatgag tctttgagga tatgggaccc aagaagtga caaagcagac atgttggttcg 300
 aggccatggc taccattctg atggattgac atgcttatcg atgacttcgg attcaciaaac 360
 gggtgttagc ggctccaagg acagttctgt gcacattgtg aatttaaact cgggccaggt 420
 c 421

<210> 2244

<211> 146

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C5

<400> 2244

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 gctgtaaata agcaggagag ttcaataata aagttttttg tctgatgttt gtggcttccc 120
 agaaataaga aagtacattt ctagat 146

<210> 2245

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C6

<400> 2245

attgtgagca ttcagaaaca cacctagcgt aacgcactag caacgaccta acaacaatgg 60
ctgtcaaaac attatccctg cttgcgcttc ttgccctttt tgtgagtgc acaaatgcgt 120
tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctccctccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcgcttg 240
cggcgagcgt cttagaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
ctatcgcta cttgcaacaa cagctgcttg catccaaccc acttgctttg gcaaacgtag 420
ctgcata 427

<210> 2246

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C7

<400> 2246

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ttttgcttcc ttatgctcct tggcttttct gcaagtgtg ctaccgcaac cattttccca 120
caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaaccgaat tcttcaaccc tacaggatcc aacagggaat cgcagcaggc 240
atcttacctt tatcaccctt gttccttcaa caaccgtcag cctattaca gcagttacct 300
ttggtgcatt tgttggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagga 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420

<210> 2247

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C9

<400> 2247

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tgccctcctta tgctccttgg tctttctgca agtgctgcta cggcgaccat tttcccgcaa 120
 tgctcgcaag ctctatagc ttccttctt ccccggtacc tctcaccagc ggtgtcttcg 180
 gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcac agctggcatc 240
 ttacctttat cacccttggt cctccaacaa tcatcagccc tattacatca gttacctttg 300
 gtgcatttat ggcacaaaac atcaaggcac aacaactacc acaacttggt ctagcaaacc 360
 ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 420
 c 421

<210> 2248
 <211> 438
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D1

<400> 2248

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 tctctacaga aaattgatca agcgaccaca catacagtcc ttgctgaca ttataacaatc 180
 acatagcagc cagaacaagt gcgcacaatc tattactatg agatgggggc atatattcga 240
 cttggactac ccaacatctg ctgccacac agatgatgaa tcatctgagc gagctgcatc 300
 aacatccagt actactgcaa acctagcaca actgcgcatt tcataactg atgaagaact 360
 tccaggttta taacgtttcc ggtgcatact ttcaagagga aatccatcat cagactgaag 420
 cgacacagaa accggtat 438

<210> 2249
 <211> 401
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D10

<400> 2249

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 aagatattag cccgtgcttg gcttcttgcc cttttagtga gcgcaacaaa tgcgttcatt 120

attccacagt gctcacttgc tcctagtgcc agtattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcgggc 240
agcgctttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa cagtttctgc catcactgag ccacctagcc 360
gtggtgaacc ctgtcaccta cttgcaacag cagctgcttg c 401

<210> 2250

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D11

<400> 2250

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gagatattat ccctctttgc gcttcttgcc ctttttgtga ggcgaacaaa tgcgttcatt 120
attccacaat gctcacttgc tcctagtgcc attattccac agttcctccc tccagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctacaggc tacaacaagc gcttgcgggc 240
agcgctttac aacaaccaat tgcccaatta caacaacaat ccttggcaca tctaaccctt 300
ccaaacattg gaacggaacc ggcaccacca tttctaccag cactttgccc aatatatttg 360
ggg 363

<210> 2251

<211> 338

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-D12

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atggctcact atgcttcccta gttgccatta ttctcacaag ttctcctct cagttacct 120
tcaatgggnc ttgcgaacac tccatgctgt gcaaagccta canggctatc aacatagcgc 180
ttgcgagcga gccgtcttac aacaactcaa tttgcccaat tacaacaaca atnccttggc 240

acatctaacc atacaaacca tcgcaacgca acagcaacaa caatttctac cagcactgag 300
ccaactagct gtggtgaacc ctgtcgcta cttgcaac 338

<210> 2252

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D2

<400> 2252

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gattgccttc atgccgacga acccaggtgg ggcattgggc tcttggtatt acaaaccaga 120
agacagacga gcacttgcta taaaatcacg tgaggtgccg ccgaaatttg gctccccaca 180
acgtcagaaa ctaattgatg agatccatga gcaaattgtc agtaaggctc ctcctatccc 240
ccaaacgctg ccaaattgtc caaacgagga gctcgcacct gactcttggt atgagcatgc 300
agacaaggta gatgaaagtg gcaacacatc caagtccatg tcaggctcgt cgagtggcca 360
tcctgtgcct gaagctgaat cgctggctgc agaaaacacg ggtgaagcat cagca 415

<210> 2253

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D3

<400> 2253

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ttcttgccct ttttgtgagc gcaacaaatg cgttcattat tccacaatgc tcaattgctc 120
ctagtgccat tataccacag ttcctccgac cagttacttc aatgggcttc gaacacctag 180
ctgtgcaagc ctacaggcta caacaagcgc ttgcggcgag cgtcttataa caaccaatta 240
accaattgca acaacaatcc ttggcacatc taaccatata aaccatcgca acacaacagc 300
aacaacagtt cctaccagca ctgagccaac tagatgtggt gaacctgtc gcctacttgc 360
aacagcaggt gcttgcatcc aaccacttg ctctggcaaa cgtagctgca taccaacaac 420
aa 422

<210> 2254
 <211> 421
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D5

<400> 2254

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 tagaggggtat gaagcagatc tatgtgaatg agtatatgga agactgcaag ctgcacacac 180
 tgtgtgacct gttcgagact cttgtcataa cccacagtgt gatgtatgct aacaccagga 240
 gtaaggtgga ctggctcact gacaagatga agagcaggga ccatactgtt tctgacagtc 300
 atggagacat ggaccagacc actacagaga tcatcatgag ggaattccgg tctggcttcc 360
 tccgagtgtc catcaccaac gaactggttg cttgtggtat tgatggtcaa caaggggtcc 420
 c 421

<210> 2255
 <211> 362
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D6

<400> 2255

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 ctgcgccccg tcacatttct tctcaagcca gatcaactca ctctagagcg tttgaacccc 120
 aactactcca accattatct caaactctcc aagctacaca cactgtctga cctgctcgaa 180
 actcttttca taaccgacag tgtcctcaat cctaacacca ccacttagga cgactcgctc 240
 acttacaaga tgcagagcag ccaccatact actattcact ctcatccaga catgcaccac 300
 accactacat acatcatcat gaaggaattc ctttctggct cctcccgagt gctcatcacc 360
 ac 362

<210> 2256
 <211> 425
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-D7

<400> 2256

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aagaggggtca acagaatgga atttctgagc cagctgcaa caatgctctc cagtatcaag 180
agcaaaaccc tcagcgagct ggaagtaccc ctgcaggctc aggtccctc aaccatttg 240
gggccctttt gctgtggttg ctgggagggc gtgcttctga tggcatagtt tctttcttct 300
ctatgttcag agatgttcgt gatcatggtc aagattacac cgatccacct cgaaatggaa 360
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tgggc 425

<210> 2257

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C12

<400> 2257

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ccaagatatt ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca 120
tttttcctca atactcacia gctcctatag ctgcccttct tccccatac ctccatcaa 180
gcaatcgcaa caagcaactt acctttatca ccctgttct ttcaacaatc gccagcccta 240
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ccagtgatca gccaaagtagc tctggcaaac ctttctcctt actctcagca acaacaattt 360
cttccattca accaactgtc tacactgaac cctgctgctt atttacaaca accacaacta 420
ctacc 425

<210> 2258

<211> 379

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-038-Q1-K1-B1

<400> 2258

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gtggccgtgg ccgtctgcc aaggcaggtc gagcggcaga ggctcagga cctgcagtgc 180
tggcaggagg tccaggaag cccgttcgac gcgtgccgc aggtccttga ccggcagcta 240
accggcgccg gcgtctgcgg cccgttccgg tggggcaccg ggctccggat gccgagctgc 300
cagcagctcc aggacgtgag ccgcgagtgc cgttgccgcg ccatccggag catggtcagg 360
ggctacgagg aggccatgc 379

<210> 2259
<211> 392
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B10

<400> 2259

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caagtaatgg tccgctgtgc agatggtgtg atggcttgca gcttaactga tctgttctcc 120
tgtaatagct aagaggtttg atagcccatt tcgactgcc aagtgacact gcacaagctt 180
caaatgcgat ctcgagcgat ataccagggg gcatgattct tccggtagca tcagaatcgt 240
cctcgagcgg cggcgttgtt ggtggcactg gaaacgggga gcaaaattga gtaaactgcg 300
ccctgtataa agcacgtttg gatcttaggg acctacgtat attcttgctt ccaaaccctc 360
accgttgat gttcagttag ggtaatacac ac 392

<210> 2260
<211> 457
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B11

<400> 2260

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gtcgcacctg acctaacctt gagccctgtg atatgccggt tcatgtcgga ggcagcaagg 180
tggcgggaccc gacgccggcc aggttggtgg acctatcgcc cgtaggcgac aggtcccgcg 240
cctgctccaa gaagaaccgc cgccgccaca agaaggccga cgccgcctct tccgtgtcgc 300
ccatgcaaag gctcttcgac accagcaggg aggtcttcgc caactcctac ccgggcttcg 360
taccgacgcc ggacgccgtc tgccgcctat cgggcctcct cagtgaagctg aagcctcgtg 420
acgtcagggt tgaccaagc atgtccgtct tcaagca 457

<210> 2261

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-038-Q1-K1-B12

<400> 2261

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acacaacagc aacaacagtt cctaccagca ctgagccaac tagatgtggt gaaccctgtc 120
gcctacttgc aacagcaggt gcttgcatcc aaccacttg ctctggcaaa cgtagctgca 180
taccaacaac aacaacaatt gcaacagttt ctgccagcgc tcagtcaact agccatgggtg 240
aaccctgccc cctacctaca acagcaacaa ctgctttcat ctagccctct cgttgtgggt 300
aatgcaccta catacctgca acaacaattg ctgcaacaga ttgtaccagc tctgactcag 360
ctagctgtgg caaaccttgc tgctacttg caacagctgc ttncattcaa ccaactga 418

<210> 2262

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B2

<400> 2262

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ccttgctctc ctggcgctcg ctgcgagcgc cgcctccagt acaagcggcg gctcgggctg 120

ccagacacca ccgtttcatc taccgcctcc gctctatatg ccgcctccgt tctatctgcc 180
gacgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg 240
ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttctctgg gccagtgcgt 300
cgagttctctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc cacagtgcc 360
ggcgctgcag cagcagtgc 380

<210> 2263
<211> 384
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B3

<400> 2263

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cgtgcgcttc ttgccctttt tgtgagcgca acaaatgcgt tcattattcc acaatgctca 120
cttgctccta gtgccattat accacagttc ctccgaccag ttacttcaat gggcttcgaa 180
cacctagctg tgcaagccta caggctacaa caagcgcttg cggcgagcgt cttacaacaa 240
ccaattaacc aattgcaaca acaatccttg gcacatctaa ccatacaaac catcgcaaca 300
caacagcaac aacagttcct accagcactg agccaactag atgtggtgaa ccctgtcgcc 360
tacttgcaac agcaggtgct tgca 384

<210> 2264
<211> 411
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-038-Q1-K1-B4

<400> 2264

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cagctcaggc aggtggagcc gcagcaccgg taccaggcga tcttcggctt ggtcctccag 120
tccatcctgc agcagcagcc gcaaagcggc caggtcgcgg ggctgttggc ggcgcagata 180
gcgcagcaac tgacggcgat gtgcggcctg cagcagccga ctccatgccc ctacgctgct 240
gccggcggtg tccccactg aagaaactat gtgctgtagt atagccgctg gctagctagc 300

tagttgagtc atttagcggc gatgattgag taataatgtg tcacgcatca ccatgggtgg 360
cagtgtcagt gtgagcaatg acctgaatga acaattgana tgaaaagaaa a 411

<210> 2265
<211> 413
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B5

<400> 2265

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cctgccacct gcggggcatc tcccaccgcc ggtccacctg ccgccgccgg tccacctgcc 120
accgccggtc catgtgccgc cgccggttca tctgccgccg ccaccatgcc actaccctac 180
tcaaccgccc cggcctcagc ctcatcccca gacacaccta tgcccgtgcc aacagccgca 240
tccaagcccc tgccagctgc agggaaacctg cggcggttggc agcaccgccga tcttgggcca 300
gtgcgctcag tttctgaggc atcagtgcaa cccgacggcg acgccctact gctcgctca 360
gtgccagtcg ttgcggcagc agtggttgcca gcagctcagg caggtgaagc cga 413

<210> 2266
<211> 432
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-B6

<400> 2266

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ggctggctct tattgccggg tgtgtgagcg caacaaatgc gttcattatt ccacaatgct 120
cacttgetcc tagtgccatt ataccacagt tcttccgacc agttacttca atgggcttct 180
aacacctagc tgtgcaagcc tacaggctac aacaagcgct tgcggcgagc gtcttacaac 240
aaccaattaa ccaattgcaa caacaatcct tggcacatct aaccatacaa accatcgcaa 300
cacaacagca acaacagtta ctaccagcac tgagccaact agatgtggtg aacctgtcg 360
cctacttgca acaacaggtg cttgcatcca acccacttgc tctggcaaac gtagctgcat 420
accaacaaca ac 432

<210> 2267
 <211> 399
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-B8

 <400> 2267

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cggaacggg acaggacccc aaaatctcag atccttctctg cccgcccgcc cgtgcccgtc  120
gacgcgtcgt tcttgccggc cgcgcctcac ctccgccctc tcttctctca gggggatcgg  180
atacgccaca ggctgcgcga tgggtgctgtg ggtcttcggc tacggctccc tcattctggaa  240
ccccggcttc gacttcgacg acaaaatcct cggtcttcac aagggtctaca agcgcacctt  300
taatctcgct tgcattgacc acagaggcac accggagcat ccggcgagga cctgcacgct  360
tgaaaccgac gacgaggcca tatgctgggg aattgcata                               399
  
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<210> 2268
 <211> 448
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-B9

 <400> 2268

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cgttgccctc gctctcttgg ctctcgctgc gagcgccacc tccacgcata caagcggcgg  120
ctgcccgtgc cagccaccgc cgccgggttca tctaccgccg ccggtgcacg tgccacctcc  180
ggttcacctg ccacctccgg tgcattctcc accgcccgtc cacctgccgt cgccgggtcca  240
cctgccaccg ccggtccatg ttgccgccgc cggtcattctg ccgccgccac catgccacta  300
ccctactcaa ccgccccggc ctacagctca tccccagcca caccatgcc cgtgccaaca  360
gccgcatcca agcccggtgc agctgcaggg aacctgcggc gttggcagca ccccgatcct  420
gggccagtgc gtcgagttcc tgaggcat                               448
  
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<210> 2269
 <211> 386

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C1

<400> 2269

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tgcggcagca gccgcaaagc ggccaggctc cggggctggt ggcggcgcag atagcgcagc 120
aactgacggc gatgtgcggc ctgcagcagc cgactccatg cccctacgct gctgccggcg 180
gtgtccccc ctgaagaaac tatgtgctgt agtatagccg ctggctagct agctagttga 240
gtcatttagc ggcgatgatt gagtaataat gtgtcacgca tcaccatggg tggcagcgtc 300
agtgtgagca atgacctgaa tgaacaattg aaatgaaaag aaaaaagtat tgttccaaaa 360
aaaaatgctg actactctca acaaca 386

<210> 2270
<211> 355
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-C10

<400> 2270

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tcctctacca gactaggctg ttaccacaac catgcttgca cattgcttac actctcctat 120
agattccctg ctaccacat acctctgatc acagacatca ataccttgag aaaacccaac 180
acttcaacac tacaggatcc aacaagcatt cacagatggc atcttacgta catcacccta 240
gttcctccaa caatcatcat ccgtattaca tcagttacct caggtgcatt tattgtcaca 300
gaacatcatg acacagctac tactacaact tgtgctagca aacatcgctg cctac 355

<210> 2271
<211> 396
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A9

<400> 2271

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggg 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca cccttgctct tcaacaatca ttaaccctat tacattaagt acctttggtg 300
catttattgg cacataacat cagggcacaa caactacaac aacttgctgct agcaaacctt 360
gctgctact ctgagcaaca gcagtttctt ccattc 396

<210> 2272
<211> 447
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-037-Q1-K1-H3

<400> 2272

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cttggtctcc ttggtcttcc tgcaagtgtt gctaccgcaa ccattttccc acaatgctca 120
caagctccta tagcttccct tcttccccca tacctctcac cagcgggtgtc ttcaatgtgt 180
gaaaacccaa ttgttcaacc ctacaggatc caacaggcaa tcgcaacagg catcttacca 240
ttatcacctt tggtccttca acaaccgtca gccctattac agcagttacc tttggtccat 300
ttggtggcac aaaacattan ggcaacaac cttcaacaac ttgtgctagc aaaccttgct 360
gcatactctc agcaacatca gtttcttcca ttcaaccaac tggctgcatt gaactctgct 420
gcttatttgc aacaacaatt accattc 447

<210> 2273
<211> 265
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-H4

<400> 2273

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gggcaatata taatggtgtt gttgtccctg gaagcgttga ggaagaggaa cgtggccggg 120

ccgctgctgc tgttcaacct tgccttttac gtttccatgt tggggttcgc gagctgggcg 180
ctcaacgcct tcgtcgacca cataggcgac caccaatact acgaccacc tgcaggcgac 240
acgtgcacgt gcatggacac gcaca 265

<210> 2274

<211> 327

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-H5

<400> 2274

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tgagagagta cccacgccc accagggccg aggtcgcgga cgtctccgaa gccgtccgcc 120
agcgcgccga cgccctgatg ctttccggcg agtcggcaat ggggaggtac ccggacaagg 180
ccctcagcgt tctgaggagc gtcagcctga ggatcgagaa gtggtggagg gaggagaagc 240
gtcagaggc ccttgaactt ccgaacgtct tgtccttctt cttcgaccag atatcgagg 300
agatcttcaa ctcaacggct taaatgg 327

<210> 2275

<211> 296

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-H6

<400> 2275

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acctgactcc atatttctag gcgcgagtag ctatgtctta gagatgacac cctttgccat 120
acatcacata accgctgtat attgctaacg ctgaacttgg aatctccaat agggtcacgc 180
gcaacctctt attcattgac cggctataaa tcattaccac tgtctccaga attgcatctg 240
gcctaaaacc tggcctccat ggatttcatg tgcatgcgct tggtgacacc accaat 296

<210> 2276

<211> 463

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-H7

<400> 2276

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tcggagcaag catcttacgg gcgtagcat taacctcca acagccatat gccctattgc 120
aacaaccatc cttagtgcac ctgtatctcc aaagaatcgc gacacaacaa ctacaacaac 180
agttgctacc aacaatcaat caagtagttg cagcgaacct tgctgcttat ctccagcaac 240
aacaatttct tccattcaat caactagctg ggggtgaacc tgctggctac ttgcaagcac 300
aacaactact accatttaac caacttgctg ggagccctga tgccttctta ctgcaacaac 360
agcttctgcc attccatctg caagctgtgg aaaacattgc ttctttcttg cgacaacaac 420
aattgttgcc attttaccca caggttggtg gaaacattaa tgc 463

<210> 2277

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-H8

<400> 2277

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aggggatttt ccatecttat gtccttgct ctttctgcat gtgttgctaa cgcaaccatt 120
tttctcaat actcacaagc tcctatagct gcccttcttc cccatacct tccatcaatg 180
accgcttcaa tttgtaaaaa cccaaccctt aaacottaca ggctccaacc agccattcga 240
accaggcact ttacctttat caccctgtt ttttaaacaa tcgccacccc tatctttggt 300
gcagtcattg gcacaaacca tcggggcaca acagttgcaa caacttgccg taccagttat 360
cac 363

<210> 2278

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-H9

<400> 2278

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 tttgaggaga tcacgttcga agctgatgga gagcgggtgtg atttgcagga atctgcaggc 120
 agctctgatg atggaggtgg ccaaacagag cactatgtca aaagcaagga gtccactcat 180
 gtgaatggcc ttctacagat gggtagaaga gatctttcta atcagctttg cttcagttca 240
 ttccaagagc aatcatgttc atctaaccat tatgagaacg acactaacca tcacacaaat 300
 gggttcgaca tgaagcatga tgtaaagatt gccaaagtaca aagcacggaa aatggcacag 360
 ttaaagaggg ctatccatcc atctcttgac ttcgacaatg canatggagt aaataggatg 420
 aagccttcac 430

<210> 2279
 <211> 56
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A1

<400> 2279

cagaccatta gctttatcta ctccagagcg cagaagaacc cgatcgacac catgag 56

<210> 2280
 <211> 329
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A10

<400> 2280

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 tgctccttgg tctttctgca agtggttgcta ccgcaaccat tttccacaa tgctcacaag 120
 ctctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca atgtgtgaaa 180
 cccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc ttaccattat 240
 cacccttggt cctccaacaa ccgtcagccc tattacagca gttacctttg gtccatttgg 300
 tggcacaaaa catcaaggca caacaacta 329

<210> 2281
 <211> 356

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A11

 <400> 2281

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 aagagttctg gttgtttaaag agaaaaaaaa gaaaaaaaa agaaaaaaaa agaaaacaaa 120
 aaataaaaaa acaaaaaata aaataaaaaat aaattaaaaa ataacataaa caacagagga 180
 gaaaatcaat gaagaaaaaa aacaatagat caatccatac aggatccaac aggcaataag 240
 caacaagcat cttaccatta tcacccttgt tcctacaaca accgtaacac cttattacag 300
 cagttacatt aggtacatgg gatgagacaa aacatcatgg cacaacatct acaaca 356

<210> 2282
 <211> 192
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A12

 <400> 2282

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 ttatgtggca caaaacatca gggcacaaact actacaacaa cttgtgctag caaaccttgc 120
 tgcatactct cagcaacatc agagctttcc attcaaccaa ctggctgcat tgaactctga 180
 tacttatttg ca 192

<210> 2283
 <211> 387
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A2

 <400> 2283

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 atcagtgatt ccaccaatga cgccctctga ttttcttgag ctgactgaaa gtgtcactgt 180
 ctttacatga cgctttgggt taaccatgcg tgatgcatgc agccttgagc atacgaatag 240

cattggccttg tttggtggtc gtcgtcgat ctigcaaccc cagcccagaa tgaccagatg 300
 tatcgcgctg atgtcaaact gctagttatc accatgcaaa gagctttaaa tcaacttcag 360
 aaggtattat aaagttggtg caaatta 387

<210> 2284

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A3

<400> 2284

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 gaaatggttt cttctcagcc atcctctctg actgcaattc tcgcacaggg cccaaccac 180
 tgcccagtc atatactcct cccgatgggg ccccagatg tcgtctctc agataatgtt 240
 gagtacgatt tctctgatgt tttgggttcc accccggtcc aaacaccaac aaacctttgg 300
 ggttttggtc cggagagtcc tgcacctact gttgagtcca atgaagaatt ttacagtgat 360
 cct 363

<210> 2285

<211> 405

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A4

<400> 2285

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 atattttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccattttt 120
 cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
 gcttttagtat gtgaaaaccc agcccttcaa ccctacagga tccagcaagc aatcgcaaca 240
 agcaacttac ctttatcaca cctgttcttt caacaatgc cagccctatc tttggtgcag 300
 tcattggtac aaaccatcag ggcagaacag ttgcagcaac tcgtgctacc agtgatcagc 360
 caagtagctc tggcaaact tccccctac tctcagcaac aacaa 405

<210> 2286
 <211> 258
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A5

 <400> 2286

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 acaattcact ggctcactgc gcatcctatt ccctatcatg tgaagtcaag ttttcaacaa 180
 ttatatctgt tgatttgagg tggaaatata aattgttgta aagcacaatt tgtttgaact 240
 gtagagcact acttcgcc 258

<210> 2287
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A6

 <400> 2287

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 caaccatata ggcttcaaca agcaatcgca gcaagcaaca tacctttatc gcccttggtg 180
 tttcaacaat cgccagccct atctttggtg cagtcattgg taaaaccat cagggcacia 240
 cagctgcagc aactcgtgct acctctgac aaccaagtag ctctggcaaa cttttctccc 300
 tactctcagc aacaacaatt tcttccattc aaccaactgt ctacactgaa ccttgctgct 360
 tatttgagc aacaactatt accatttagc cagctagcta ctgctactc tcagcaacaa 420
 caact 425

<210> 2288
 <211> 428
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-038-Q1-K1-A7

<400> 2288

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ggggggcgcc ttatgtcctt tgggctttct gcaagtgtg ctacggcgac cattttcccg 120
caatgctcgc aagctcctat agcttccctt cttccccctg acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt ggtcctccaa caatcatcag ccctattaca acagttacct 300
ttggtgcatt tattggcaca taacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420
aactctgc 428

<210> 2289

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-038-Q1-K1-A8

<400> 2289

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gagatggcta agatcgccgg agccgccgag gggggggcgg cgctgtgctt cgcggccctg 120
gtggccgtgg ccgtctgcca aggcgaggtc gagcggcaga ggctcaggga cctgcagtgc 180
tggcaggagg tccaggagag cccgctcgac gcggtgccgc aggtcctcga ccggcagcta 240
accggggcgg gcgtcggcgg cccgttccgg tggggcaccg ggctccggat gcggtgctgg 300
cagcagctcc aggacgtgag ccgcgagtg cgtcgcccg ccatccggag catggtcagg 360
ggctacgagg aggccatgcc gcctctggag aaaggctggt ggccatgggg gcggcagcag 420
cagcc 425

<210> 2290

<211> 341

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-H2

<400> 2290

g c g g c c c c a a c t a c c c n c a g t c t c g g a a g a g a a c t a t c c a g a a g c g c a a g a c t c c a a a g c 60
c g t c g c g t t c g t a t c c a t t c c g t t c t t g g c c c g g g g g g t c g g c t g a g a t c a c a t a n a c a a 120
t g g t g a a g g c t g t t g c t g t g c t t g g t a g c a g c a t g g t g t c a a g g c a c c a a t c t t t t t c a 180
c c c a a g t g g a a a a g g g c c t t a c a a t t g c a a c c g a a g g g g c t t t t g c c t t a a g c c t t g c c t 240
t c a t t g g t t t c a t g g g c c t t c c c t t g g t g a c c c a c c c a t g g c t t c a t g g t a a c t g g a c c 300
a c a c t t c c a t t c t g c g a a c c a g g g a c c t t g a g c c c c g a a g 341

<210> 2291

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D12

<400> 2291

a c g a a a g c a c a c g a a g c g a a t c g c a c t a g c a t t g a c c t a a c a c c a a t g g c t a c c a a g a t a 60
t g g c c c g g c t t g c g c t t c t t g c c t t t t a g t g a g c g c a a c a a a t g c g t t c a t t a t t a c a c 120
a g c g c t c a c t t g c t c c t a g a g c a t t a t t c c a c a g t t c c t c c a c c a g t t a c t t c a a t g g 180
g c t t c g a a c a t c c a g c c g t g c a a g c c t a c a g g c t a c a a c t a g c g c t t g c g g c g a g c g c c t 240
t a c a a c a a c c a a t t g c c c a a t t g c a a c a a c a a t c c t t g g c a c a t a t a a c c c t a c a a a c c a 300
t a g c a a c g c a a c a t c a a c g a c a c a a c a g t t t c t g c c a t c a c t g a g c c a c c t a t c c g t g g 360
t g a a c c c t g t c a c c t a c 377

<210> 2292

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D2

<400> 2292

a t t t c t a c c a g c a c t g a g c c a a c t a g c t g t g g t g a a c c c t g t c g c c t a c t t g c a a c a g c a 60
g t t g c t t g c a t c c a a c c c a c t t g c t c t g g c a a a c a t a g t t g c a t a c c a a c a a c a a c a 120
a t t g c a a c a g t t t c t a c c a g c g c t c a g t c a a c t a g c c a t g g t g a a c c c t g c c g c c t a c c t 180

acaacagcaa caactgattt catctagccc tctcgctgtg gttaatgcac ctacatacct 240
gcaacaacag ttgctgcaac agattgtacc agctctgact cagctagctg tggcaaacc 300
tgctgcctac ttgcaacagc tgcttccatt caaccaactg actgtgtcga actctgctgc 360
gtacctacaa cagcgacaac agttacttaa tccactagcg gtggctaacc cattggctcg 420
tgctttccta cagcagcaac aatt 444

<210> 2293

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D4

<400> 2293

agtatagccg ctggctagct agctagttaa gtcatttagc ggcgatgatt gagtaataat 60
gtgtcacgca tcaccatggg tggcagtgtc agtgtgagca atgacctgaa tgaacaattg 120
aatgaaaag aaaaaagtat tgttccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aggaaaaaat taaaaaaaaa aaaaaaaaaa 240
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa atttaaaaaa aaataaaaaa aataaaaaaa 300
aaaaataaaa aaaaataaaa aaaaaaaaaa aaaataaaaa aaaaaaaaag gggggcccct 360
ttaaaggaac caatttttaa ttcccgggtt tggaagaata aaacttt 407

<210> 2294

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D5

<400> 2294

atcgagcaa gcaacatacc tttatcgccc ttgttgtttc aacaatcacc agccctatct 60
ttggtgcagt cattggtaca aaccatcagg gcacaacagc tgcagcaact cgtgctacct 120
gtgatcaacc aagtagctct ggcaaacctt tctccctact ctcagcaaca acaatttctt 180
ccattcaacc aactgtctac actgaaccct gctgcctatt tgcagcaaca actattacca 240
tttagccagc tagctactgc ctactctcag caacaacaac ttcttccatt taaccaattg 300

gcccgcactga acccccgctgc ttatttgcag cagcaaatac tactgccatt tagcgagcta 360
 gctgcagcaa gtcgtgcttc cttcttgaca cagcaacagt tgctgccttt ctacaagcag 420
 tttg 424

<210> 2295

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D6

<400> 2295

tttgtttttt tttttttttt tttttttttt tttttgtttt tttttttttt ttttggtttt 60
 tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttaaaaa 120
 aaaaaaaagg ggaaaaaagg ttttttttgg aaagggaaaa aaaaaaaaaa aagaaaaaag 180
 aaaggggggg ggggattaaa aaggggggat ggggggggtt aaaaaacagg ggggcaataa 240
 aagggaaaaa aactcaaaaa aaaatttggg acgggggttaa aaacctaatt ttttgccaaa 300
 aaaaaggggg gggggaaaaa aaggggccca ttgtttatta aaaaaattga ggtatatttc 360
 ccagggggaa aaaaccaa atatttttgg ggagggggta acgcattttt taatgggg 418

<210> 2296

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D7

<400> 2296

gatcagcaaa gcggcagtcg gtagagagga tcgtcgaaca gaacagcatg aagatggtca 60
 tcgttctcgt cgtgtgcctg gctctgtcag ctgccagcgc ctctgcaatg cagatgccct 120
 gccctgcgc ggggctgcag ggcttgtacg gcgctggcgc cggcctgacg acgatgatgg 180
 gcgccggcgg gctgtacccc tacgcggagt acctgaggca gccgcagtcg agcccgctgg 240
 cggcggcgcc ctactacgcc ggggtgtggc agccgagcgc catgttccag ccgctccggc 300
 aacagtgctg ccagcagcag atgaggatga tggacgtgca gtccgtcgcg cagcagctgc 360
 agatgatgat gcagcttgag cgt 383

<210> 2297
 <211> 442
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-D8

 <400> 2297

ccttcttgaa cttagcggaa acaatgccat cattgttatg gatgatgtag atatccagct 60
 agctgtgcga tctgtcttgt tcgctgctgt tggtagcagca ggacaacgct gcaccacatg 120
 tcgtaggctg attcttcatg agaacatata tcaaaccttc cttgatcagc ttgttgaggt 180
 atacaaacaa gtccgaattg gggatccgtt ggagaaaggg accttactgg gaccactgca 240
 cactcctgct tcaaaagaga actttttgaa aggcattcag actatcaaact ctcagggagg 300
 gaaaatcctt tttggaggat ctgccattga atcagaagga aactntgtgc aaccgacaat 360
 tgtggaaatt acaccttctg caccagttgt gaaagaagaa ctctntgggc ctgtccttta 420
 tgttatgaaa tttcagacct tg 442

<210> 2298
 <211> 322
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-D9

 <400> 2298

cggcccgacc cagcgtgct aaggtcgaga ggttctccgg gttccggttt cgaggggtgag 60
 cggatcgaga tgggggaggc ggatgttgag taccgctgct tcgtcggcgg cctcgcttgg 120
 gccacagacg accactccct ccacaacgcc ttcagcacct acggcgaggt cctcgagtcc 180
 aagatcatcc tcgatcggga gacgcagatg tcccgcggct tcagcttcgt caccttttcc 240
 acggaggagg cgatgcggaa cgccatcgat ggcataaacg gcaaggagct ggacggccgc 300
 tacatcaccg tcaacgaagc cc 322

<210> 2299
 <211> 396
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E1

<400> 2299

tgagcccatc caagacatgg atactattgc acaacctact ttccagatac aggaggggtga 60
taaccacact gggaatcaag aaatcatacc aaggagaaaa agtatgggca ggcaacttga 120
atcgттааgс agaggactgg gaatcaatat tccaatccaa atcactgaag ggaacaaaag 180
gccagagcca cctattcaag ctgctaagtt tgcatacagag ggtggaatca cattgaggca 240
gcacattcca atatttaacc attggaagga atacaagaag agagagaatg aacctataat 300
aagaaactac attggcaaag ttactgctaa tttcacggtg gacagtgaga gcaagacagt 360
ggaagatgca tgtctagaca tgctaaagag tggaca 396

<210> 2300

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E10

<400> 2300

caaagaactt gagacattga agccagttgt gcagcggcag attgccgatc ataacagagg 60
aggtactgtg gaatctaata tgaatagtct aaatggagac aatggtacaa ctcataggat 120
agagcagcat actccaagct cttatactcc acagccattt gtaggtagca ctaatggagc 180
atcgcaaaaa tccttccatg ctgggagaca agtggcatca ttactgagtг tccagaaaca 240
atatatgaat ctaccatatc caaaagaaga aacactagct agacactcca tattaggacc 300
taacggtctt aatggtcgat ggaatgggcc tgttactgga attaaagttc agtatccaag 360
caattttgaa ttaacacaaa acgatataac 390

<210> 2301

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E11

<400> 2301

cccaactctg gcattcctca gttaggcatt tttcagacac agcctatgat tcaaccaaac 60

tcacattggc caaatcagca ggaagtacac attgtctcac aaccacaaga tgaacaaac 120
tattcagacat cccaatcagg tcagactgca ttgcaacaag aactattaa tactgatgag 180
ctgtcccccaggcaagtga ggggtggccat ccagaccatc ttaatgccc ggggaaacaa 240
cagcagagcc ctgcaagtgc acctactgaa tcaactcatg aacttactgt tgttgaaaca 300
aacatagctg aacatgtacc ttatgatgaa caacaaaaaa ccttaaaaga acaggattca 360
ctatcaaata taaaagcca tgttgggaag 389

<210> 2302

<211> 452

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-E12

<400> 2302

ggattccccg tcgaccagcg tncgactctc tggttgagta aacggctttt gattaaaatg 60
gtactggtaa agagaggaac tctttgcaaa tgggtcctat ttcgacaggg cgccacaaaa 120
ctcccagaga ctgaacttgc aagctgcagg cgttgagatt gaccgggttg gagccatcaa 180
ggttgacgaa tattctcgta cttctgtccc tagtgatgg gctgtgggtg atgtaacaaa 240
ccggattaat ttaacacctg ttgcattgat ggaggcaact tgctttgcta aaactgtgtt 300
tgggtggccag caagttaagc ctgatcacag agatgttcc tgtgctgttt tctccattcc 360
accactatct gtagtgggcc tcagcgaaga acaggccttg gaggaagcta atggtgatat 420
tcttgttttc atctcatcat tcaaccaat ga 452

<210> 2303

<211> 312

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E2

<400> 2303

ttgcgttacc cggcggctta aaccctattt ccattccat cttcgggttc gctccgccgg 60
cggcgatgga gttctggggg cttgaggtca aacctggatc cactgtcaag tgtgaacctg 120

gacatggggtt tatectggac gtttcccaag ctggccttgg ggaatcaaag aaaagtgacc 180
 gtgccttaat ggatgtcaaa gttgatgacc agaagcttgg cattggaacc ctttctattg 240
 accaataccc accggttcca ttccatttgg ttttcaataa agagattgag ccggcacaca 300
 ccttgaaaac tt 312

<210> 2304

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E3

<400> 2304

gagagctatt ccacctcgtc tcaggcaccc tcgggggtcc ctttcccccg ccgctgccc 60
 gcgagccgcg gagatccggg ttctgacctc gcctccttct gctgacttgt gaacgaggca 120
 gcatcatagt tcagtttggg aacatgtcat cgaagaagat agagttggat cacaaggaca 180
 tgggtccatga ttctgccatc gactactatg gcaagcgcc tggcactgcc tcttcagact 240
 tcaccgtgaa gatcgtcaac attggtgctg caaatgcccc atcccaggtc cttgcaacgc 300
 taagtggcca ctatggctct gtgtggcgtg ttgcttgggc ccatccaaag tatggtgcaa 360
 tccttgcatc gtgcagttat gatggccgtg tcattatttg gaaagaggat g 411

<210> 2305

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-E6

<400> 2305

agaccattag ctttatctac tccagagcgc agaagaaccc gatcgacacc atgagggtgt 60
 tgctcgttgc cctcgtctct ctggctctcg ctgcgagcgc cacctccacg catacaagcg 120
 gcggtcggg ctgccagcca ccgcccggg ttcatctacc gccgccggtg catctgccac 180
 ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgcccggg 240
 tccacctgcc accgccggtc catgtgccgc cgccggttca tctgccgccc ccaccatgcc 300
 actacctac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360

aacagccgca tccaagcccg tgccagctgc agggaaacctg cggcgttggc agcaccccga 420
tcctggggcca gtgcgtcgag ttcc 444

<210> 2306
<211> 407
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D11

<400> 2306

tccgattccc ggtcgaccac ggcgtacgaaa cccaccaagc gaacgcacta ccatcaccta 60
ccaccacggc ttccaagata ttggggccctc ctgggcctct ttgcccttta aatgggcgca 120
accaaattgcg ggcattatta ctaagggtc acttgtctct agagccagat ttccacagtt 180
actaccacca gttacttcaa tggggtcaga tcatccaacc gtgctagcct acaggctaca 240
actagcgctt gcggcgagcg ccttacatca accaattgtc caattgcaac aacaatcctt 300
ggcacatcta accctacaaa ccattgcaac gcaacatcca caacaacaac agtttatgcc 360
atcactgagc cacctagccg aggtgaacct tgtcacctac ttgcaac 407

<210> 2307
<211> 314
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B9

<400> 2307

cccttcgcga tgtaatatga gccgtataat tggaatcgga aggtccgat ttgtccatgt 60
taaggcggct atgtgacaat tgctaaagaa gccctggcta aaaaaaaaaa aaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaataaaaaa aaaaaaaaaa aagcatcaat 180
atgaaaaaaaa cccaataaat caaccataaa gagtaacaaa aagcaatcaa ataaaaaaaa 240
gatgagccat agtttaaaag atcaacaac aatcaccagc catacttatg aaacagtctt 300
ttatacaaac catt 314

<210> 2308
<211> 445
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C1

<400> 2308

cagtagcaac aatagagcaa caatggcgac caagatactt tccctcctta tgctccttgc 60
tctttctgca tgtgttgcta acgcgacaat tttccctcaa tgctcacaag ctccatatagc 120
ttcccttctt ccccatatcc ttccatcaat gatagcttca gtatgtgaaa acccagctct 180
tcaaccctat aggctccaac aagcaatgc agcaagcaac atacctttat cacccttggt 240
tcaacaatcg ccagccctat ctttggtgca gtcattggta caaaccatca aggcacagca 300
gctgcagcaa ctggtgctac ctgtgatcaa ccaagtagct ctggcaaacc tttctcccta 360
ctatcagcaa caacaatttc ttccattcaa ccaactatct aactgaacc ctgctgctta 420
tttgcagcaa caactattac cattc 445

<210> 2309

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C10

<400> 2309

gaccaactag caacatagaa agcacaattg tgtaccaaca atggcagcca aaatattttg 60
cttccttatg ctcccttggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cctttcttcc cccatacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt 240
acctttatca cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
gcatttggtg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct 360
tgctgectac tctcagcaac agcagtttct tccattcaac caactggctg catttgactc 420
tgctgcttat ttgcaacaa 439

<210> 2310

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C11

<400> 2310

tgcgatttcg atctcgcagc cacctttttt ttgttctgtt gtgtatctag tagttggagg 60
agatatgcag tttgcacttg cattggacac gaactcaagt cctcaccaga taagatcttg 120
tgaggggtgat gggattgaca gggttgaaaa attaagtatt gggggcagaa agcaggagaa 180
agctttgaga aataggtgct ttgggtggtag agttgctgca actacacaat gtattcttac 240
ctcagatgct tgtcctgaaa ctcttcattc tcaaacacag tcctctagga aaaattatgc 300
tgatgcaaac cgtgtatctg ctatcatttt gggcggaggc actggatctc agctctttcc 360
tctgacaagc acaagagcta cgcctgctgt acctgttga ggatgttaca ggcttattga 420
tatccctatg agta 434

<210> 2311

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C12

<400> 2311

cctgacgcgc ggaactggcg gtggcgatct catctaattg ccatccatgc cccgctccgc 60
ctctgcctcc gcctccatgc gaggaaggta gccagacgcg tataaagggc agccagaaat 120
tcagatccac ctgtatgcgt ctccgttcgt tcacgccaca ggcaaggcac agaggcttgt 180
gagggagagc gaggagcgga tgaggacatg gtgcacggga cgctggaagt gctgctcgtt 240
ggggccaagg gcctcgagaa caccgattac ctctgtaaca tggatccgta tgcaattctc 300
aagtgccgtt cacaggagca gaagagcagt attgcaactg gaaaaggaac tacccttgag 360
tggaatgaaa actttatctt cactgtgtct tgacctgaca acagacttgg gtatcaagct 420
tat 423

<210> 2312

<211> 422

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-C2

<400> 2312

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atTTTTgcca tCcttgccct cCttgctctt tcagcaagcg ttgctaccgc gactattatt 120

ccacaatgct cacaacaata cCtctctccg gtgacagccg cgagatttga atacccaact 180

atacaatcct acaggctaca agaggccatc gcagcaagca tCttacggtc gttagcattg 240

accgtccaac aaccatatgc cCtattgcaa caaccatcct taatgaatct atatctccaa 300

agaatcgag cacaacaact acaacaacag ttgcttccaa caatcaatca agtagttgca 360

gcgaaccttg ctgcttacct ncagcaacaa caatttcttc cattcaatca actagctggg 420

gt 422

<210> 2313

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C3

<400> 2313

cccacgcgtc cgagccctgg agtctgacga cctcgtttcc ctgctgtctc gcctctcttt 60

cggttctcac ggcgacgact gggcgagcgc cgctccct cCctcgctcg tgaggtcctc 120

gccggcgagc agtgccgccg cccgtttcca tgttttttcc gccgattagt gtccaccaga 180

tctagtgaag gctggttaact tgacgcaagg tgttcaagaa atttaagcca cacactcttc 240

atcataggcc caggcaatat ttgtgttaat ctcagggacc tccagtagat tgctgagagt 300

tatccttgat acaggggaat atagacacag aattttttga acattgatct gtagccagtg 360

ctgcaatggc taaaaagctt gtggttctcg gtatccctcg ggatgttgac actgaagggt 420

tacgagag 428

<210> 2314

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C4

<400> 2314

cggacgcgtg ggcaactagc aacatagata gcacaatagt gtaccaacaa tggcagccaa 60
 aatattttgc ctcttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt 120
 cccgcaatgc tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggt 180
 gtcttcggta tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc 240
 tggcatctta cctttatcac ccttgttcct ccaacaatca tcagccctat tacatcagtt 300
 acctttggtg catttattgg cacaaaacat cagggcacaa caactacaac aacttgtgct 360
 agcaaacctt gctgectact ctacagcaaca gcagtttctt ccattcaacc aactagctgc 420
 attgaactct gcttcttatt gcaacaacaa ca 452

<210> 2315
 <211> 446
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-C5

 <400> 2315

cggacgcgtg ggccggacgcg tgggggttgag ggtctgatga cactgtcca tgccatcact 60
 gctaccaga agactgttga tgggccctca tctaaggact ggaggggtgg aagggtgct 120
 agtttcaaca tcattcccag cagcactgga gctgctaagg ctgttggaag agtgcttct 180
 gtccttaacg gaaagttgac tggaatgtct ttccgtgtcc caaccgtcga tgtttctggt 240
 gttgatttga ctgttaggct tgaaaagtca gcaacctatg atgagatcaa ggctgcggtc 300
 aaggccgagg cagaaggtag cctcaagggc atcctgggtt acgttgaaga ggacctgtt 360
 tccaccgatt tccaggtga cagcaggtct agcatctntg atgctaaggc tggcattgcc 420
 ttgaacggca acttcgtgaa gctcgt 446

<210> 2316
 <211> 437
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-C6

 <400> 2316

gccaaaatat tttgctcctt tatgctcctt ggtatttctg caagtgtgc tacggcgacc 60
 attttcccgc aatgttcaca agctcctata gcttcccttc ttcccccgta cctctcacca 120
 gcggtgtctt cggatatgtga aaacccaatt cttcaaccct acaggatcca acaggcaatc 180
 gcagctggca tcttaccttt atcacccttg ttctccaac aatcatcagc cctattacag 240
 cagttacctt tgggtgcattt attggcacia aacatcaggg cacaacatct acaacaactt 300
 gtgctagcaa accttgctgc ctactcttaa caacagcagg ttctttcaat tcaaccaact 360
 agctgcttgg aactctgttc ctaatttgcc acaccaccaa ctaccattca gccagctacc 420
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<210> 2317

<211> 430

<212> DNA

<213> Zea mays

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<400> 2317

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 aatattttgc ctcttatgc tccttggctt ttctgcaagt gctgctacgg cgaccatttt 120
 cccacaatgc tcacaagctc ctatagcttc ccttcttccc ccgtacctct caccaacggg 180
 gtcttcggta tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcagc 240
 tggcatctta cctttatcac ccttgttcct ccaacaatca tcagccctat tacagcagtt 300
 acctttgggtg catttattgg cacaaaacat cagggcacia caactacaac aacttgtgct 360
 agcaaaccct gctgctact ctgagcaaca gcagtttctt ccattcaacc aactagctgc 420
 attgaactct 430

<210> 2318

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-C9

<400> 2318

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gtaccacatt tgaacctttc aggaccaact tcttttgcac ctcttattta tgcagcgatt 120
tctgtttgttg aaaacagtaa ttggcagtag catgtcctcg tgatcatagc tgatggacag 180
gtgactgccg cgaatataaa tgatggaaga ttaagtccac aggaacaagc aactatacaa 240
gcaattgtcg atgctagcta ctatcctctt tcaatagtaa tggttggggg gggatgatgga 300
ccatgggatg cgatgcagca ttttgatgac tgtatccctg aaagagcttt tgacaatttt 360
cagtttgtga acttcactgg tattatgtca acaaagtagg atatgtc 407

<210> 2319

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-D1

<400> 2319

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catcctgggtg gatccaaatc tatgttatga aacattgtag agtcagaaga cgacgtacca 180
tatgggtatg gttttttcca ttttgcttc gcggcgggct ccatgtacgt caggatgggtg 240
tttgtcggct gggacacaca tcatacaatg aagcaatgga gcgtggatat tgggtggatg 300
agcacgtggg ttcatatcgc caatgaggct ctcgtagtag tattctacat agcaatactt 360
gctgctagaa ttttcggaat aggcttgctc cgacatc 397

<210> 2320

<211> 372

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-D10

<400> 2320

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aacagtacct ttggtgcatn attggcacia aacatcaggc acaacactac aacacttgtg 120
ctagcaacct tgctgctact ctcaaacag cagtttcttc cattcaacca actaggttca 180
ttgaactctg cttcttattt gcaacaacia caactaccat tcagccagct acctgctgcc 240

tacccccagc aatttcttcc attcaaccaa ctagcagcat tgaactctcc tgcttattta 300
cagcagcaac aactactacc attcagccag ctagctggtg tgagccctgc taccttcttg 360
acacaaccac ag 372

<210> 2321

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-B8

<400> 2321

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tggtccgaag aaaaacatga ggggtgcctgc tctgagagca aacgggagga cacacatgct 120
ggagccatca gaacggctga tctgttggcc tcagaagtcg ctgggagctg ggcagtggaa 180
acagctccgt ctgtcaatgg ggagaacgaa tctccaagga gcttgggcga tgctacagag 240
cacgatgaag ctggaggcag cgctgcaggc gatgctttgg taactctggt gaactcagag 300
ggccaggcgg ctgggagcca gaacaacgtt gagcgtggca gcttccaaaa taacctatca 360
tcatcatcat caccatcgtg ttcttagtgc catgattgga atngntgatc ctgagttcan 420
gaagcaaatg 430

<210> 2322

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A3

<400> 2322

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cgtcgggctg ggctgggccc atgggcctga accagctcgg cccggcccag atccagcaga 120
tccaggccca gctcatgttc cagcaccagc agcagagggg cctgcacgcg gcgttcctgg 180
gcccgcgggc gcagccgatg aagcagtccg ggctgcggcc ggcgagtcg aagctgtacc 240
ggggcgtgcg ccagcgccac tggggcaagt ggggtggcgg gatccgcctc cccaagaacc 300

gcacgcggct gtggctcggc accttcgaca cgcgcgaggg cgcggcgctg gcctacgacg 360
aggcg 365

<210> 2323

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A4

<400> 2323

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ttatgctcct tgctctttct gcatgtgttg ctaacgagac aattttccct caatgctcac 120
aagctcctat agcttccctt cttcccccat accttccatc aatgatagct tcagtatgtg 180
aaaacccagc tcttcagccc tataggctcc aacaagcaat cgcagcaagc aacatacctt 240
tatcaccctt gttgtttcaa caatcgccag ccctatcttt ggtgcagtca ttggtacaaa 300
ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa gtagctctgg 360
caaacctttc tccctactct cagcaacaac aattttct 397

<210> 2324

<211> 265

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A6

<400> 2324

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caagaagatg gaggtatctc agcattccaa gtacttttgc gagttctgtg ggaagtttgc 120
tgtgaagagg aaagcagttg gaatttgggg gtgcaaggac tgtgtgatgg agaaggctgg 180
tagagcttac accatgaaca ctgcttgtgc agtcaccggg tgagcacaga ttcttagcat 240
gaggatttgc cgatgcatga tatat 265

<210> 2325

<211> 467

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A7

<400> 2325

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aggcagctgc gccgcagcac acacacacac accgaccagc gcagagagct atttgattca 120
gatgcgcatt tggctgattc agatgcgcat ttggcagaag gcaatcgctg agcgcgaagg 180
agtaaaagca tgatcagata ttcagatctt ggatcagtct agactgacac cttaggtcgc 240
cctttacaaa tatgacttaa aaaggatgtg aacagagtag tacagcacat gctttggaag 300
tttgatatt cttgtccgtg taacttccca catgaacaac gagcaaagcg tcgctgcat 360
gcatcaatta atggcttaaa gctattgagt gctgatactg agcagttttc cagtgagcct 420
gttacaccct tcctggctat agagcgtaga cgatagcgat agttcaa 467

<210> 2326

<211> 276

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A8

<400> 2326

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cacaacacac ctggcacggt acttctcct actaattcct aactcacaat tttcctacat 120
gcttacaaaa ctataacttc cttcttcac ataccttcat taatatagct tcatatataa 180
aacccaactt atatcctata gctccacaac aattccacag caacatacct ttaaaccctt 240
gatattcaac aatcccaccc tatcttcttt caaaat 276

<210> 2327

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A9

<400> 2327

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tcaacattgt gggtattggt catgtcgact ctggcaagtc gaccaccaca ggacacctta 120

tctacaagct tggaggcatt gacaagcgtg tgatcgagag gttcgagaag gaggctgctg 180
 aaatgaacaa gcggtccttc aagtacgcgt ggggtgctcga caagctcaag gctgagcgtg 240
 agagaggtat caccattgat atcgctctgt ggaagtttga gaccaccaag tactactgca 300
 cggtcattga tgccccctgga caccgtgact tcatcaagaa catgatcact g 351

<210> 2328

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B1

<400> 2328

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 ccagcaattt cttccattca accaactgac agcattgaac tctcctgctt atttacagca 120
 gcaacaacta ctaccattca gccagctagc tgggtgtgagc cctgctacct tcttgacaca 180
 accacagttg ttgccgttct accagcacgc tgcgcctaac gctggcaccc tcttacaact 240
 gcaacaattg ctgccattca accaacttgc tttgacaaac ccagcagcat tctaccaaca 300
 acccatcatt ggtggtgccc tcttttagat ttcttatgag ttatagttca ataataaagt 360
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<210> 2329

<211> 247

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B10

<400> 2329

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 ccccaaggat gacgccacca gcaccttgac atgcctcgtc gtaaccaact acgaggttgt 180
 tttttgacca tcaggccgct gaactagcat taccgtgcgc gcctatacca tgaacaacat 240
 ctaaact 247

<210> 2330

<211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B11

<400> 2330

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ctgcattgaa ctctgctgct tatttgcaac aacaattacc attcagccag ctagttgctg   120
cctacccccca gcaatttctt ccattcaacc aactagcagc attgaactct gctgcttatt   180
tacagcagca acaactacta ccattcagcc agctagctga tgtgagccct gctgccttct   240
tgacacaaca acagttgttg ccgttctacc tgcacgctat gcctaacgct ggcaccctct   300
tacaactgca acaattgctg ccattcaacc aacttgcttt gacaaacca acagtgttct   360
accaacaacc catcattggg ggtgccctct tttagattgc ttatgagtta tagttcaata   420
atgaaagttt ttggatgatg t                                         441
  
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<210> 2331
 <211> 436
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-B12

<400> 2331

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ccaaataggc caattgccag cttcatattc tctggaccaa ctggagttgg caaatcagag   180
ctagcaaagg ctctggcagc ctactacttt ggctcagagg aggctatgat taggcttgac   240
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gttgggtaca ctgagggagg ccaactaact gaagcagtcg gtcgccgccc atacacagtt   360
gttctctttg atgagattga gaaggcacat nctgatgttt tcaacatgat gcttcagata   420
ttagaggatg gggcga                                         436
  
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<210> 2332
 <211> 298

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-020-Q1-K1-B3

 <400> 2332

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 gagcacgacc ttcacgcata caagctgctg ctgcagctgc cagccaccga cgccggatca 180
 tctaccaacg ccggcgcatc tgccacctac ggtgcaccag ccacctgctg cgcgtatcac 240
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<210> 2333
 <211> 316
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-B4

 <400> 2333

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 tgggcgcgga gctggatggc ctcaccaacc tgcagccccg ccacggctgc gacgacccca 180
 acttccccta ctacctcaag ctcaagtgcg agaactgcgg ngaggtcacc gncaagtcca 240
 cctacgtcac cctcagcgag caagtcgacc tgcccaaagg acacgggggc gctcacctcg 300
 tccagaagtg caagct 316

<210> 2334
 <211> 450
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-020-Q1-K1-B5

 <400> 2334

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tgctttggca aacgtagctg cataccaaca acaacaacag ttgcaacagt ttctaccagc 180
gctcagtcaa ctagccatgg tgaaccctat cgcctaccta caacagcaac aacttctttc 240
atctagcccg ctcgctatgg gcaatgcacc tacatacctg caacaacagt tggtgcaaca 300
acagttgctg caacaaattg taccagctct tactcagcta gctgtggcaa accctgctgc 360
ctacttgcaa caactacttn cattcaacca actgactgtg tcgaactctg ctgcgtacct 420
acaacagcga caacagttac ttaatccact 450

<210> 2335

<211> 449

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B6

<400> 2335

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tcaattgcag aacagcacac cgcacgtatt ttgtgctttt gccgcagagg atcctggggc 180
tttgcgccct gcttcagcct acaaagaccc cgcgcaccca ggctgcgctc tggtccttgc 240
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aagtctgttg ttggagggac acacgtatcc agcccaccaa agatttactc aatttatccc 360
agacgagaca cacactcgca acgaccggac cgtcgaatct cgcgactccg gcgacatgtc 420
gacggcggtg gcagaggtgc ggccgctct 449

<210> 2336

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-B7

<400> 2336

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 tgccaacagc cgcacccaag cccgtgccag ctgcagggaa cctgcggcgt tggcagcacc 420
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<210> 2337

<211> 278

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A2

<400> 2337

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 aaaggctaatt ttgttccaag ggccttttatt ccaaagttcc tccaaccagt tacttaaagg 180
 ggctttgaac acctagttgt gcaagccaac ttgcaacaac aagcgcttgc ggcaagcgtt 240
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<210> 2338

<211> 273

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F5

<400> 2338

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 agtgttctac caacaacca tcattggtag agccctctat agattgctta tgagttatag 180
 accaataatg aatgatagct ggatgatgtg agaaccgtgc tataaatcca tatgtgcatt 240
 tctcaagcaa tcgcatcaag caacatacct tta 273

<210> 2339

<211> 418

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-037-Q1-K1-F6

<400> 2339

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 aattggctaa tattgtacag gttcagtttg caggatcgta gcaacagggt tcaaagacgt 180
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 atttcatttc atgagagagg attgctattt gatccttgaa ctgtacttgg tcgtacttgt 360
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<210> 2340
 <211> 175
 <212> DNA
 <213> Zea mays
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<400> 2340

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<210> 2341
 <211> 479
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-037-Q1-K1-F8

<400> 2341

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 cctaaatgct cacatgctcc tatagcttcc attgttacac cataccttgc atcaactata 180

gcttcaatat gtgaaaaccc acctcttcaa ccataatgc ttcaacaagc aatcgcagca 240
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 caattatctc tggcaaacct tctccatac tctaagcatc aacaattttt tccattcaac 420
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<210> 2342

<211> 118

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F9

<400> 2342

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<210> 2343

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G1

<400> 2343

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 ggtattcata atcctaactt gcttatagtc gtgggtggga tatttggctt tgggtgctgca 360
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<210> 2344

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G10

<400> 2344

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cagggccaac taccttcaca atttggctct gcgctagggc agtcacagcc aggcctgggc 360
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<210> 2345

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G11

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tttgttgccg ttctacctgc aactgcccgc taacgttggc accctcttac aactgcaaca 240
attgctgcca ttcgaccaac ttgctttgac aaaccagca gtgttctacc aacaacccat 300
cattggtggg gccctctatt agattgctta tgagttatag ttcaataata aagttcttta 360
tctgatgtat gtggctttcc agatataaga ctgtacattt ctaa 404

<210> 2346

<211> 269

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G12

<400> 2346

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caacgttgac agcagctcaa gcatgtggag cctcataaac cgtaccaagc gatcttcagc 120
 ttggcccttc agtccatcct gcagcagcag cctcaaagcg gccacgttgc ggggctgttc 180
 gctgcgcaaa tagcgcaaca actgacagcg atatgcgggc tgcataatc gactgcatgc 240
 ccctacgctg atgtcggaag tgtcccca 269

<210> 2347

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G2

<400> 2347

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 cagctggatg gggctcgcca tacgcatgga caacctgtac ctctgtgggt tcaggacccc 120
 gggcggggtg tgggtggagt tcggcaagga cggcgacacc cacctcctcg gcgacaaccc 180
 cagggtggctc ggcttctgcg gcaggtacca ggacctcatc ggcaacaagg gtctggagac 240
 cgtcaccatg ggccgcgccg aaatgaccag ggccgtcaac gacctggcga agaagaggac 300
 gatggcgaca ctgaaggagg aggaggtgca gatgcaaatg caaatgccgg aggccgttga 360
 tctggggggc gcggcagcgg ttgaccaca ggccgacacg 400

<210> 2348

<211> 295

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G3

<400> 2348

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 cgggcgggag cagccaattc caaagcgtga caaagccgct gcaaatgatt caacatacct 120
 caatcctcat gctcatgata gtgctcttgg aatcattctg agaggtgggt ctgtgactag 180
 attgtaccct ttgacaaaga agcgtgccaa tgctgcagt gccattgggt gccaaactata 240
 gactgattga tatttctgtc aataattgtt tgaacagcaa cattttccag atcta 295

<210> 2349

<211> 284
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-G4

 <400> 2349

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 ccggatgctc cttgggtctt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttacccc gtacctctca ccaacgggtgt cttcggtttg 180
 tgaaaaccca attcttcaac cttacaggat ccaacaggca atcgcagctg gcattctacc 240
 tttatcacc ttgttctac aacagtcac acccctatta cagc 284

<210> 2350
 <211> 416
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-G5

 <400> 2350

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 aagagatttt ccttccttat gctccttgct ctttctacat gtgttgctaa cgcgacaatt 120
 ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt 180
 atagcttcag tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
 gcaagcaaca taccttaatc gcccttggtg tttaaccaat cacaaccctt atcttggtgc 300
 catcattggg tccaaccaat aaggcacaac cacttcacc acctcggcct acctgtatcc 360
 aaccaattac ttttgccaaa ctttcttct aatcttaaca accaccattt ctttca 416

<210> 2351
 <211> 75
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-G6

 <400> 2351

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tgggccttgc catac

75

<210> 2352

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G7

<400> 2352

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acaacctcga gaagaagcac cggcaacgac gacgagctag cactagcagt cagtcacagc 180

cgggcaagat tgattcggac gagcagccga tgatgatgca cgggaacggg cacgggcacg 240

gccgtgtcca cccggcgctc tccagctccg acttctccgg cgagatgaac cagtcggccg 300

tgtccgaccc ttcttcacgc cggttctaca gtttcaactt caagaagccg gtccggccgc 360

cgccgcccgc 369

<210> 2353

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-G9

<400> 2353

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gcacatctaa caatacagac catcgcaacg caacagcaac aacagttcct accagcactg 120

agccacctag ccatggtgaa ccctgtcgcc tacttgcaac agcagctgct tgcattccaa 180

ccacttgctc tagcaaacgt agttgcaaac cagcatcaac acaactgca acagtttctg 240

ccagcgctta gtcaactagc catggtgaac cctgccgtct acctacaaca gcaacaactg 300

ctttcatcta gcccgctcgc tgtggccaat gcacctacat acctgcaaca cgaattgttg 360

caacagattg taccagctct aactcagcta gctgtggcaa accctgttgc ctacattcaa 420

cagctgc 427

<210> 2354

<211> 351
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-H1

 <400> 2354

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 tgcgggtccc cgggcagaag ggcgcgcgcg gcgacctgag ggtcaagttg gacgtcgtct 120
 tccccaagga gctcaccccc gagcagcgcg ccggcctcgc cgagatcctc agagggtcct 180
 gctgatccat cggtcccgagt tccaagcgta tcaagttttc ttggccgtgt ccgtgtgtta 240
 aattttaata tgtatcctca tagcgcgtgt gatgaagata taagttcctt aaagagagag 300
 gtgagggggc ctcgttgtac atacatgtcg tttatatatt atatatgtaa g 351

<210> 2355
 <211> 268
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-H10

 <400> 2355

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 agtgaggagg caaccgagg acgcctctcc catccacgcg cgaatcctac cgccctcca 120
 ctcccaaaaa cctagccgcg gcgcgccact gcatcccatg gcggcaaccg cggccgtggc 180
 ggggaccggg tcgtccctct cctcgcgcgc cagtcgcagc gttgtctcct cgtccttcgc 240
 cgcagctgcc tcgcgttcc gctcgccg 268

<210> 2356
 <211> 337
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-H12

 <400> 2356

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 atccaaccgg gcagtccaac ttgcatttta accttaataa ccttggttct tccaccatca 120

ttaaccctat tacagcaagt acctttggtg catttattgg cacaaaacat cagggcacia 180
 caactacaac aacttgtgct agcaaaccctt gctgcctact ctcagcaaca gcagtttctt 240
 ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca acaactacca 300
 ttcaaccagc taccttgtgc ctacccccaa caatttc 337

<210> 2357

<211> 327

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-F4

<400> 2357

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 cagctggcga tcttaccttt atcacccttg ttcctccaac aatcatcagc cctattacag 120
 cagttacctt tgggtgcattt attggcacia aacatcaggg cacaacaact acaacaactt 180
 gtgctagcaa accttgctgc ctactctcag caacagcagt ttcttccatt caaccaacta 240
 gctgcattga actcctggct ctaattggca ccaccaccac ctccaatcaa cccgcttact 300
 tgtggcttac cccaccaat tctttca 327

<210> 2358

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E1

<400> 2358

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 cgcaagctcc tatagcttcc cttcttcccc cgtaacctct accagcgggtg tcttcgggtat 180
 gtgaaaaccc aattcttcaa cctacagga tccaacaggc aatcacagct ggcattctaac 240
 ctttaataacc cttgttctct caacaatcat cagccctatt acatcagtta cctttggtgc 300
 attaattggc ccaaaccatc agggcccacc acctacaaca acttgggcta gcaaaccctg 360
 ctgcctactt taagcaccag cagttccttc cattcaacca 400

<210> 2359
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E11

<400> 2359

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gctgtcaagc aagggcgcca acgaggtgct cctcgtcata gaggcctaca agacgctgcg 120
cgaccgcgcg ccctaccgga ccagcttcat gctcgcccag ctcaccggct cctacgcctt 180
cgtcctcttc gacaagtcca ccaactccct gctcgctcga tccgaccccg agggcagggt 240
gccgctcttc tgggggatca ccgccgacgg ctgcgtcgcc ttctccgacg acatcgacat 300
gctcaaaggc tcatgcggca agtcgctcgc gccgttcccg caaggctgct tctactccaa 360
cgccctcgga ggggtcaagt gctacgagaa cccaagcac aaggtcaccg ctgt 414
  
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<210> 2360
 <211> 292
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E12

<400> 2360

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ccactctccc taccaccca gttcatgct caccatctc accttctcct actccttctt 120
cctcttcac aagtccacca actccctgct cgtctcatcc taccaccaac tcagggtgcc 180
gctcttctgg aggatcacct cctacggctg cgtcgcttcc ttctacgaca tcgacatgct 240
caaaggetca tgcagcaaat ctctttctcc gttccctcaa agcttcttct ac 292
  
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<210> 2361
 <211> 258
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E2

<400> 2361

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 ttgtgctgcc ttatgctcct tgggtcttct gcaagtgttg ctaccgaaac cattttccca 120
 caatcctaac aacctcctat accttccttt cttcccccat acctttaacc accggtgtct 180
 tcaatgcttg aaacccatt tgttcaacct tacaggatcc aacagccatt cgcaccaggc 240
 atctaaccat aataaccc 258

<210> 2362
 <211> 393
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E3

<400> 2362

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 tttggctgcc ttatgctcct tgggtcttct gcaagtgttg ctaccgcaac cattttccca 120
 caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
 tcaatgtgtg aaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
 attttaccat aataaccctt gttcttcaac caccgcgaag ccttataaca gcagttacct 300
 tgggtcaatt gggggcccca aaccttcagg cccaccacc tccaccacct gggcctacca 360
 aacttgggtg attcctttaa gaaccttaag ttc 393

<210> 2363
 <211> 192
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E4

<400> 2363

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 gggcggtgac tgtacaggac ccagaaatct cagatccttc ctgcccggcc gcccggtgcc 120
 gtcgacgcgt cgttcttgcc ggccgcgcct cacctccgcc ctctcctcct acagggggat 180
 cggatacgcc ac 192

<210> 2364
<211> 458
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E5

<400> 2364

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gctgatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtaçctctca ccagcgggtgt cttcggtatg 180
tgaaaacca attcttcaac cctacaggat ccaacaggca atcacagctg gcattctacc 240
tttatcacc ttggtccttc aacaatcctc agccctatta catcagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgçctactct cagcaacagc agtttcttcc attcaacaa ctagctgcat tgaactctgc 420
ttcttatttg caacaacaac aactaccatt cagccagc 458

<210> 2365
<211> 393
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-037-Q1-K1-E6

<400> 2365

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ctaattgccc aactgcaaca tcaatccttn gcacatctaa caatacatat catcctaacg 180
caacagcaac aacagtttct accagcactg aaccacctaa ccatggtgaa cçctgtcçcc 240
tacttgcaac aacaactgct tgcatacaac cçacttgctc tagcaaacgt acttgcaaac 300
cagcaacaac tacaactgca acagtttctg ccaccçetta atcaactagc catggtgaac 360
cctgçcçcct acctacaaca gcaacaactg ctt 393

<210> 2366
<211> 439
<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-037-Q1-K1-E7
 <400> 2366

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 tttgtccagt atggggttgt ataccagctg aagatagcaa acaatagcag aagtattgct 120
 gtctatctgc tttcctggat atgtgtggct gtgatttttg gtctgttcgt gctaattgtcc 180
 tatgctcgag acaagtatgc cgcaaagcag cacctttact accgggttgg tcaaactggg 240
 tgcatacttc ttggaatgct agtgctgggt ttggttctga agttcacgga atttcaaata 300
 attgacatct tcaatagtct tttggcattt attcctactg gttggggctt gatttcgatc 360
 gctcaagtaa ttgggccatt catcgaatcc actggggctt gggacaggat taattctggg 420
 gctccgttgg atgaaatac 439

<210> 2367
 <211> 269
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E8
 <400> 2367

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 gtcgacgcgt cgttcttgcc ggccgcgcct cacctccgcc ctctctctct ccagggggat 180
 cggatacgcc acaggctgcg cgatggtgct gtgggtcttc ggctacggct tccttatctg 240
 gaacccccgc ttcgacttcg acgaccaa 269

<210> 2368
 <211> 425
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-E9
 <400> 2368

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gtctcagcaa caacaatttc ttccattcaa ccaactgtct acactgaacc ctgctgctta 120
 tttgcagcaa caactattac catttagcca gctagctact gcctactctc agcaacaaca 180
 acttcttcca tttaaccaat tggccgcaact gaaccccgct gcttatttgc agcagcaa 240
 actactgcca tttagcgagc tagctgcagc aagtcgtgct tccttcttga cacagcaaca 300
 gttgctgcct ttctacaagc agtttgccgc taaccccgca accctcttac aactacaaca 360
 attgttgccc tttgtccaac ttgctttgac aaaccagca gccttctacc aacaacacat 420
 cattg 425

<210> 2369

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F1

<400> 2369

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 tttccctcaa tgctcacaag ctccatagc ttcccttctt ccccatacc ttccatcaat 180
 tatagcttca gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc 240
 agcaggcacc ataccttaat cgcccttggt gtttcaccat tcacaagcct tatctttggt 300
 ccagccattg ttccaacca tcaggcccca ccagttgcag cacctgggac tacttggaac 360
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<210> 2370

<211> 422

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-F10

<400> 2370

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 gccatgtgcc gccgcgggtt catctgccgc cgccaccatg ccaactacct actcaaccgc 120
 cccggcctca gctcatccc cagccacacc catgcccgtg ccaacagccg catccaagcc 180

cgtgccagct gcaggggaacc tgcggcggtg gcagcacccc gatcctgggc cagtgcgtcg 240
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 cgttgccggca gcagtgttg cagcagctca ggcaggtgga gccgcagcac cgttaccagg 360
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 cg 422

<210> 2371

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F11

<400> 2371

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 ggccgtcccg cctcggcact cgacggccgc cggcacacac cgcgcagtct cgagacagat 120
 cccgatctcg ttctgccaac cgccgaggga gggttgcgct cgccggatcc cgtccgagtc 180
 acgtgcccgt ttgattcgct gcacctgtcg tgcaggaacc ggaggaacga ggatggagga 240
 tgactctccg ctgacgaaga cgatgaacgg tgcggtgaca gtactcgctt cagtgacct 300
 ctggggcacc gtcgtcgtca cctggtacga cgtgccccgt gtggagcgcc acgtctcgct 360
 ccatggcctt atccggactc tcaagatgtg cggcacctac ggcgccacct tcgccacct 420
 cgg 423

<210> 2372

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F12

<400> 2372

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 gtgcgcgaga acatcttcaa agggatcgac gcccggttcc tgagcgaagc cctgggcgtc 120
 agcatgcacg tcgccgagaa gctgcagagc cggcgtgacc agcgaggcga gatcgtccgc 180
 gtggagccgg agcacggctt tcaccagctg aatccgtcgt cgtcgtcgtc gtcgttttcg 240

ttcccatcgt cacaagtcca gtaccaaacg tgccagcgcg acgtcgacag gcacaacgtc 300
 tgcgccatgg aagtgaagca cagcgtcgaa cggctggacc aggccgacgt ctacagccct 360
 tggggctgga ggatcacacg 380

<210> 2373
 <211> 341
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F2

<400> 2373

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 ctggcaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgtctcaa gttccattat tacacagttc cttccaccag 180
 ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
 cggcgagcgt cttacaacaa ccaatttcca agttgcaaca ccaatccttg gccatttaa 300
 caatccaaac catggaaacg caacagcacc accaattcct a 341

<210> 2374
 <211> 380
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-F3

<400> 2374

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 gctgcttact tgcaggcaga acagctacta ccgttcaacc aactggcttt gacaaactca 120
 acagtgttct accaacaacc catcattggg ggtgccctct ttaagattgc ttatgagtta 180
 tagttcaata atgaagtttt ttgaatgatg tttggggcgt ccaaaaatta agaaggtcca 240
 tttctaaaaa aaaaatgtaa gataatataa ataaaaata ttaaaaaaaa aaaaaaagg 300
 cgcccccttt aagggtccca agtttacatt cccggttatg caaattaaaa acttttttat 360
 aggtacccca aatttaaatt 380

<210> 2375
 <211> 430
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D9

<400> 2375

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 gaactgcaga agaaccctat caactacaca caggttgccg tgctcgcgga tgacatattg 120
 aaaaatgtgg aatatgatgc tctgaggggtt attttcaaca agttccaatc tgtcatatcg 180
 ttttaagccca caatggtaac aatactttcc cccgaggttg cagaaaaaga atcagaagct 240
 ggtgggaaga tgggtgacct agattcttat gagattgaag gcggcgagac aaaatcagag 300
 attttgcaga atctagctga gttccagttt tcttgtgtcc tgtacaatgg tgccctagag 360
 aatgcatgca gtgagcttgg agcccgtatg tctgccatgg acagctctag cagaaatgct 420
 ggcgatatgc 430

<210> 2376
 <211> 244
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C1

<400> 2376

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 cccaacatcg taaaatgttt gcatccataa acctacctaa atcttaacac ttattccact 120
 aattccaacc aaactcttct cttcaacacc cctactatca atctcctata ccagtacacc 180
 aataatatac ccatctaccc caattatccc ttcacctata ataatatcca tctcattccc 240
 catc 244

<210> 2377
 <211> 253
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C10

<400> 2377

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ccaacaatca ttatccctat tacatcaata acctttactc catttattta cacaaaacat 120
cataacacaa caactacaac aacttatact atcaaacctt aacttcctac tttcataaac 180
aataattact tccataacaac caactatctt caattaaact ctacttatta attacaacaa 240
caacaactac cat 253

<210> 2378

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C11

<400> 2378

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gtctagcagc agggacggcc gcctcatcct cgcagccgcc gtctgtctct ccgtgctcgc 120
ggctgccagc gccagcggcg ggacctcctg cgtgccgggg tgggccatcc cgcacaaccc 180
gctcccgagc tgccgctggt acgtgaccag ccggacctgc ggcacgggc cgcgcctccc 240
gtggccggag ctgaagagga gatgctgccg ggagctggcg gacatcccgg cgtactgccg 300
gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg ccggggcccg acgcgcagct 360
ggagggccgc ctagaggacc tgccgggctg cccgcgggag gtgcagaggg gattc 415

<210> 2379

<211> 341

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C12

<400> 2379

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ctcacaagct cctatagctg cccttcttcc cccatacctt ccatcaatga ccgcttcagt 120
ttgtgaaaac ccaacccttc aaccctacag gctccaacaa gcaatcgcaa caagcaactt 180
acctttatca cccctgttct ttcaacaatc gccagcccta tctttggtgc agtcattggt 240
acaaaccatc agggcacaac agctgcaaca actcgtgcta ccagtgatca gccagtagc 300

tctggcaaac ctttctccct actctcagca acaacaattt c

341

<210> 2380

<211> 275

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C4

<400> 2380

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taagcacctg gccatcttac acatcgtgta agcccatag taacttgaat gtgttacaca 180

tctgtgtgct gtcttttgcta tccagtcttt acacagcatt tcaggaacca aaagatatat 240

tatgtaaaaa ttaattggaa ttttaagaat tgatg 275

<210> 2381

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C5

<400> 2381

atctgccgct ccagcctttc gctaggggtgt atccaccggc ggcgcgcgcg acggcggcaa 60

gatggtgagg cgtctgacct accgctagcg gcacatctat gccacgaagt ccatccagac 120

gggggtcggt aagaccctg gtggcaagct cgtgtaccac tacaccaaga atagagccag 180

cgggccaag tgtccagtga ccggttaagaa gatccacggc attcaccatc tgaggccagc 240

tgagtacata aggtccaggt tgtctaggaa ccgcagaact gcgaaccgtc cctatacagg 300

agtactatct ggaactgcag atggaggacg gatcatccgt gcttt 345

<210> 2382

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-C6

<400> 2382

gctctcgctg cgagcgccac ctccacgcat acaagcggcg gctgcggctg ccagccaccg 60
 ccggcgggttc atctaccgcc gccggtgcat ctgccacctc cggttcacct gccacctccg 120
 gtgcatctcc caccgccggt ccacctgccg ccgccgggtcc acctgccacc gccggtccat 180
 gtgccgcccgc cggttcacct gccgccgcca ccattgccact accctactca accgccccgg 240
 cctcagcctc atccccagcc acacccatgc ccgtgccaac agccgcattc aagcccgtgc 300
 cagctgcagg gaacctgcgg cgttggcagc accccgatcc tgggccagtg cgtcgagtgc 360
 ctgaggcatc agtgcagccc gacggcgacg ccctactgct cgcctcagtg ccagtcggtg 420
 cggca 425

<210> 2383
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-037-Q1-K1-C9

<400> 2383

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 gttcgggatg tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgagctg 120
 gcattctacc tttatcaccc ttgttctcc aacaatcacc agccctatta cagcagttac 180
 ctttggtgca tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag 240
 caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat 300
 tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta tctgctgcct 360
 acccccagca atttcttcca ttcaaccaac tgacagcatt gaactctnct gcttatttac 420
 agcagcaac 429

<210> 2384
 <211> 266
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D10

<400> 2384

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gaagctgatg cttgtggttc ttgctttcat tgcttttagta tcaagtgttt cttgtacaca 120
gacagtctgc tgcagtctgc gtgtaacaac aaatccatga gcagcaacat catccatata 180
aacatcatcc acaatggcaa caatcataac caccaccaca gcatcaccag catcagcaac 240
tcctacaaca acaagttcac atgcat 266

<210> 2385

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D11

<400> 2385

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gctccttatg ctcttggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc ccctgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctatag gatccaacag gcaatcgag ctggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcttac tctcagcaac aacagtttct tccattcaac caactagctg cattgaactc 420
ttgcttttat t 431

<210> 2386

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-D12

<400> 2386

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gcttcccccg tacctctcac cagcgggtgc ttcggtatgt gaaaacccaa ttcttcaacc 120
ctacaggatc caacaggcaa tcgcagctgg catcttacct ttatcaccct tgttcctcca 180
acaatcatca gccctattac aacagttacc tttggtgcat ttattggcac ataacatcag 240

ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct gcctactctc agcaacagca 300
 gttttcttcca ttcaaccaac taggttcatt gaactctgct tcttatttgc aacaacaaca 360
 actaccattc agccagctac ctgctgccta ccncagcaa tttcttccat tcaaccaact 420
 agcag 425

<210> 2387

<211> 429

<212> DNA

<213> Zea mays

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<400> 2387

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 aacggggggg cctattaaca tcaggtgctt cattctaacc aactgcctgg accaaacttt 120
 gtttcgaact tacaccacca ccaccagtgc ctaatcccat tgcaaactgt taacccatgg 180
 ttcgatacct ttctgcaaca gcaacaacaa ttgcttgcat acaaccggtt ttttttgatg 240
 aacccttcct ttcaacaacc cattgttgaa gggcccaact tttaaattac ctttgacatt 300
 tacttcacaa tggggccctt tttccgacct tgtgttccta aaaaaaatca attatttgat 360
 tggaattaat tctcattaaa aaaaaaata atttcaattc cattccattc atttgtattg 420
 gttattaac 429

<210> 2388

<211> 456

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D3

<400> 2388

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 ccggatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cttacaggat ccaacaggca atcgcagctg gcattctacc 240
 tttatacccc ttgttcttac aacaatcatc acccttatta caacagtaac ctttgcagca 300

ttaattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcctacttt cagcatcagc agttttcttcc attcaaccaa ctaggttcat agaactctgc 420
 ttctttatttg caacaacacc aattaccatt cagcca 456

<210> 2389
 <211> 295
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-037-Q1-K1-D4
 <400> 2389

cccacgcgta cgagtgttg cggtatacca gcagttgtcg ttggcccatt tgggtggcaca 60
 aaagatcagg caacatcagc tacaacaact ggtgctagca aaccttgctg catactttta 120
 gcaacatcag tttcttccat taacccaact ggtgtcattg aactctgctg cttatttgca 180
 acaacaatta ccattcagcc agctagttgc tgccatcccc cagcaatttc ttccattcaa 240
 ccaactagca gcattgaact ctgctgctta ttacagcag caacaactac tacca 295

<210> 2390
 <211> 222
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-037-Q1-K1-D5
 <400> 2390

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 catcacgctt ctgtatgctc cacatcattg gtgcaaccgt tgctacacaa gccatttacc 120
 cacaatgctc acatgctgct atagcgtaca ttcatgcgcc atacctataa ccagcagtgt 180
 ctttaatgag tgaaacccca attgttcaac cctacaggat cc 222

<210> 2391
 <211> 407
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-037-Q1-K1-D6
 <400> 2391

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 accgtgctgc ctacttacaa cagttgcttc cattcaacca actggctgtg tcaaactctg 120
 ctgcgctacct acaacagcga caacagttac ttaatccatt ggcagtggct aaccattgg 180
 tcgctacctt cctgcagcag caacaacaat tgctgccata caaccagttc tctttgatga 240
 accctgcctt gcaacaaccc atccttgga gtgccatctt ttaaattaca tatgagatgt 300
 actcgacat ggtgccctta taacgacatg ggggttcctaa aaattatcaa tatattgatt 360
 gaaaattatc tcgattaataaaaaataacc tataataaat ggaaaaa 407

<210> 2392

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D7

<400> 2392

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 gaaccccgct gcttatttgc agcagcaaat actactacca tttagccagc tagctgcagc 120
 aaaccgtgct tccttcttga cacagcaaca gttgctgctt ttctaccagc agtttgcggc 180
 taaccccgca accctcttac aactacaaca attgttgccc ttgtccaac ttgctttgac 240
 agaccagcg gcctcctacc aacaacacat cattggtggg gccctctttt agaatgctta 300
 ttagttggaa ttcaataata aaggtttttg gatgatgtat gtggccaacc agaaataaga 360
 agttacattt cc 372

<210> 2393

<211> 161

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-D8

<400> 2393

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 tattttgatc atcctatact actaccattc aaccatctat ctccaacca ccttgctaca 120
 cttctcacac actaacatat cctcccttct taccacctac c 161

<210> 2394

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B9

<400> 2394

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cgaccaagag attttccctc cttatgctcc ttgctctttc tgcattgtgt gctaacgcga 120
caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
caatgatagc ttcagtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa 240
tcgcagcaag caacatacct ttaacaccc tgttggttca acaatcgcca gccctatctt 300
tggtgcagtc attggtacaa accatcaggg cacagcagct gcagcaactc gtgctacctg 360
tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttc 417

<210> 2395

<211> 445

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-H4

<400> 2395

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caagacatta tccctccttg cgcttcttg cctttttgtg agtgcaacaa atgcgttcat 120
tattccacaa tgctcacttg ctccgagtgc cattattcca cagttcctcc ctccagttac 180
ttcaatgggc ttccaacacc cagctgtgca agcctatagg ctacaacaag cgcttgccgc 240
gagcgtctta gaacaaccaa ttgcccaatt acaacaacaa tcttggcac atctaaccat 300
aaaaccatc gcaacgcagc agcaacaagc actgagccac ctagccgtgg tgaacccat 360
cgnctacttg caacaacagc tgcttgcac caaccactt gctttggcaa acgtagctgc 420
ataccaacaa caacaacagt tgcaa 445

<210> 2396

<211> 394
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-018-Q1-K1-H5
 <400> 2396

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 gtggccgtct gccaaaggca ggctcgagcgg cagaggctca gggacctgca gtgctggcag 180
 gaggtccagg agagcccgtc cgacgcgtgc cgccaggctc tcgaccggca gctaaccggc 240
 ggccgcgtcg gcgccccgat ccggcggggc accgggctcc ggatgcggtg ctgccagcag 300
 ctccaggacg tgagccgtga gtgccgtgc gccggcatcc ggagcatggt caacggctac 360
 gaggaggcca tgccgcctct ggagaaaaggc ttgt 394

<210> 2397
 <211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-018-Q1-K1-H6
 <400> 2397

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 tttgtcatcc ctcatcacia agaaccactt ctgacgagat tctttggaga gttgcaagac 120
 aggggaagggg agtttggaa atcagacatt caactcggtc tgacaacact tgaagaggtg 180
 ttctgaaca ttgcaaagca ggcagagctg gagacctcta ctgctgaagg taccctgggtg 240
 actctcaacc tgtcatcagg aacaacaatt cagattccca aagtggctcg tttcgttgggt 300
 attccctgaa ctgagacaga ggagcatcca aaaggcatca tggatgatgtg tactgggatc 360
 aggatgaaat ggatcgctct gcatttctgg gcactctgac gagatgcccg tgccagttca 420
 tgctgagctg agga 434

<210> 2398
 <211> 439
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H7

<400> 2398

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tttgcttctt tatgtctcctt ggtctttctg caagtgttgc taccgcaacc attttcccac 120
aatgctcaca agctcctata gcttcccttc tccccccata cctctcacca gcggtgtctt 180
caatgtgtga aaaccaatt gttcaacctt acaggatcca acaggcaatc gcaacaggca 240
tcttaccatt atcacccttg ttccctcaac aaccgtcagc cctattacag cagttacctt 300
tggtccattt ggtggcacia aacatcaggg cacatcaact acaacaactt gtgctagcaa 360
accttgctgc atactctcag caacatcagt ttcttccatt caaccaactg gctgcattga 420
actctgctgc ttatttgca 439

<210> 2399

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H8

<400> 2399

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ccatgccact acctactca accgccccgg cctcagcctc atccccagcc acacctatgc 180
ccgtgccaac agccgcatcc aagcccgtgc cagctgcagg gaacctgcgg cgttggcagc 240
accccgatcc tgggccagtg cgtcgagttt ctgaggcatc agtgcagccc gacggcgacg 300
ccctactgct cgcctcagtg ccagtcgttg cggcagca 338

<210> 2400

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-H9

<400> 2400

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 cacaatgctc acaacaatac ctctctccag tgatagccgc gagatttgaa taccatcta 180
 tacaatccta caggctacaa gaggccatca cagcaagcat cttacggtcg ttagcattga 240
 ccgtccaaca accatatgcc ctattgcaac aaccatcctt agtgaatctg tatctccaaa 300
 gaatcacagc acaacaacta caacaacggt tgcttccaac aattaatcaa gtagttgcag 360
 cgaaccttgc tgcttacctt cagcaacaac aatttcttcc attcaatcaa ctagcntggg 420
 tgaaccctgc 430

<210> 2401
 <211> 182
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-019-Q1-K1-A10
 <400> 2401

ccaacacatc caccacaata catccaccaa caatctacaa caatctcaca ccacaatcca 60
 acaaaacaac acaacaacca tctactatt aaatctcaac aactactcaa actctcacac 120
 aatctaacaa caccacatca cctaccacca aacctacta caccactcat actacaaaaa 180
 ta 182

<210> 2402
 <211> 422
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-019-Q1-K1-C12
 <400> 2402

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 cctatagctt ccttctcttc cccatacctt ccatcaatga tagcttcagt atgtgaaaac 180
 ccagctcttc agccctatag gctccaacaa gcaatcgag caagcaacat acctttatca 240
 ccttgttgtt ttcaacaatc gccagccta tctttggtgc agtcattggg acaaaccatc 300
 agggcacagc agctgcagca actcgtgcta cctgtgatca accaagtagc tctggcaaac 360

ctttctccct actctcagca acaacaattt cttccattca accaactgtc tacactgaac 420
cc 422

<210> 2403
<211> 352
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-019-Q1-K1-D11

<400> 2403

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ccccccctcc cccccccccc cccccccccc cccccccccc cccccctctc cccccctccc 180
cctctctccc cctctctccc ccaccctcac cctctctccc cctctctctc tccccctccc 240
cccccccccc ctctctcccc cccccccctc cccccccctc tccccccccc cctctctccc 300
ccccctcccc cccccccccc cccccccctc ctccccctcc ccacctctct cc 352

<210> 2404
<211> 327
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-019-Q1-K1-E11

<400> 2404

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cactctctat gtccaattca cctacatacc tgcaacaaga attggttgcaa cagattgtac 120
catctctaac tcacttagct attacaaacc ctgtttccta cttgcaacat ctgctttcat 180
ttaccaact aactatttct aactctagag cgtacctact tcagcgacaa catttactta 240
atccattggc aatttctaac ccattgttca ctaccttct acatcatcat caattgctgc 300
catacaaccg attctctttg atgaatc 327

<210> 2405
<211> 371
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-019-Q1-K1-G10

<400> 2405

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ttctactacc tcaaccatth tcccacaatg ctcacaatct cctatatctt cctttcttcc 120
cccatacctc tcaccatctt tatcttcagt atgtcaaaac ccaattcttc aaccctacat 180
tatccaacat gcaatcacat catccatctt acctttatca cccttattcc tccaacaacc 240
gtcatcccta ttacatcatt tacctttggg gcatttattt gcacataaca tcatatcaca 300
acaactacta caactttttc tataaaacct ttcttctctac tctcatcaac aacaatatcc 360
ttcattcaac c 371

<210> 2406
<211> 211
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-019-Q1-K1-H10

<400> 2406

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cttcaataaa cttcaaacac ctaacttttc attccaacat tcatcaacaa tctcttgac 120
ctaccatctt acaacaacca attaccaat tacaacaaca atactttctt catctaacaa 180
tacaagcca tcacatctca tcatcaacaa c 211

<210> 2407
<211> 160
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-019-Q1-K1-H11

<400> 2407

acatccacca agcaatctac aacatactca ccccatcacc acacgatccc atctacaacc 60
atataactat tccatctcac aacctactca aactcccctc caatctgaca ccaacacaat 120
tcctaccatc aatttacacc ttcttccacc cattctacca 160

<210> 2408

<211> 121

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-019-Q1-K1-H12

<400> 2408

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gcaacaatat atcatcaatg actaccatta tactttccct ccttattctc ctttctcttt 120

c 121

<210> 2409

<211> 421

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-020-Q1-K1-A1

<400> 2409

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aacgggacaa tttttcctca atgctcacia gctcctatag cttcacttct tgccccatac 180

cttgcaccaa ttatagcttc agtatgtgaa aaccagctc ttgaaccata taggcttcaa 240

caagcaatcg cagcaagcaa cataccttta tcggccttgg agcttcaaca atcaccagcc 300

ctatcttttg tgcagtcatt ggtacaaacc atcagggggc aacagctgca gcaactagt 360

ctacctgtga tcaaccaagt agctctggga aacctttctn cctactttca gtaccaacaa 420

t 421

<210> 2410

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A10

<400> 2410

actcgatgag cagcgacttg gttaggccgt tcgcgaccg gtcaagggaa aaactttggc 60

tgggtgtcttg cccatattgg agtcttttggg taatggggca aacaaggcat ctagacggac 120
 tgaacatggc aggaccccaa gtgtttctcgt tctactacca acaagagagc tggccaatca 180
 ggtgcacgct gactttgagt tttatgggtgc aacatttggg ctctctgcat gttgtgtgta 240
 tgggggatca ccttatcgtc ctcaagaaat ggcattgaga agaggtgtgg atattgtcgt 300
 tggaactcct ggtcgtgtca aggatttcat tgctaaagga actctcaatt tgaaatgctt 360
 gaaattccgt gtccttgatg aagctgatga gatgctaaac atgggggttcg ttgatgatgt 420
 cgagctcatt cttggc 436

<210> 2411
 <211> 375
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-020-Q1-K1-A11

<400> 2411

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 gctccttggg ctttctgcaa gtgctgtac ggcgaccatt ttcccacaat gtcacaagc 120
 tectatagct tcccttcttc ccccgtagct ctcaccaacg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 360
 ctctcagcaa cagca 375

<210> 2412
 <211> 409
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H3

<400> 2412

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 ctcgatcacc aactcactgg tgtggcaacc tgccgtcgt cgcagtcaa ccgccgccac 120
 ctgacacttg tccccggacc gatcttcgga ccagtcgtc gtccagctcc agcaccagca 180

gcagcagcac aagccgaagg aggcgctgta gtctcccgcg ttgctgttga acccatcgta 240
cgccaccctc gcgcgaggga aggacagagc cctgtactgc tactgcggag tgctgagccg 300
ctagagcgta gtgcgcaagc cgggacccat gcatgagcgc tactacttcg gatgcgggaa 360
ctggaccgtc acccggcgcg ccatctgccc gtacttcgca tgggcctcg 409

<210> 2413

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G10

<400> 2413

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ccaaaggatt ttgcttcctt atcctccttg gtctttctgc aagtgtctgt accgcaacca 120
ttttcccaca atgctcaca gtcctatag cttcctttct tccccatac ctctcaccag 180
cgggtgtcttc agtatgtgaa aacccaattc ttcaacccta caggatccaa caggcaatcg 240
cagcaggcat cttaccttta tcacccttgt tctccaaca accgtcagcc ctattacagc 300
agttaccttt ggtgcatttg ttggcacaaa acatcaaggc acaacaacta caacaacttg 360
tgctaggaaa ctttgctgcc tactctcagc aacagcagtt tcttcattc aaccaactgg 420
ctgcattg 428

<210> 2414

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-G11

<400> 2414

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agtcgagagc aaatgctatc ttcaaccaca ctccgaccgc cggcgccggc gccggcgccg 120
gcacacctca ccatctgctc ctgccccgca gcgtggcggc gtgcgccggc ggtgcgcgcg 180
gtgcggaact acgactccat cccgaagcgg gagcccttca gctccagccg cagcatcctc 240

cacgagttcc tcaggcagga caagcccctc atccagcgca ccaaggacca gatcacagat 300
tattgcacgg ccattcgaagg cgatgagtgcc tgcagctggt gggacgctta ctttgaactg 360
aataaacttg agcaagagct gcccacagac gaaatcgcaa ggatggtgaa ggactc 416

<210> 2415

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G12

<400> 2415

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gctgccagcc accgccgccg gttcatctac cgccgccggg gcattctgcca cctccgggtc 120
acctgccacc tccggtgcat ctcccaccgc cggtccacct gccgccgccg gtccacctgc 180
caccgccggg ccattgtgcc ccgccgggtc attctgccgc gccacctatg cactacccta 240
ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgtgc caacagccgc 300
atccaagccc gtgccagctg cagggaacct gcggcggttg cagcaccgcc atcctggggc 360
agtgcgtcga gttcctgagg catcagtgc 390

<210> 2416

<211> 443

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-G2

<400> 2416

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gcagcaatgg cgaccaagat attttccctc cttatgctcc ttgctctttc tacatgtggt 120
gctaacgcga caattttccc tcaatgtcga caagctccta tagcttccct tcttccccca 180
taccttccat caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt 240
caacaagcaa tcgcagcaag caacatacct ttatcgccct tgttggtttca acaatcacca 300
gccctatctt tgggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc 360
gtgctacctg tgatcaacca agtagctctg gcaaaccctt cntcctactc tcagcaacaa 420

caattttcttc cattcaacca act

443

<210> 2417

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-G3

<400> 2417

cagcaagcaa catagaaagt ggaatacagt agcaacaata gagcaacaat ggcggccggg 60

atatgttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccattttt 120

cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180

gcttcagttt gtgaaaaccc agcccttcaa ccctacaggc tccaacaagc aatcgcaaca 240

agcaacttac ctttatcacc cctgttcttt caacaatcgc cagccctatc tttggtgcag 300

tcattggtac aaaccatcag ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc 360

caagtagctc tggcaaacct ttctccctac tctcagcnac aacaatttct tccattcaac 420

caactgtcta cactg 435

<210> 2418

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G4

<400> 2418

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ctcggagttc cccgctagtg acttctcccg acgccgctgc gccgcctctg ccagcggagt 120

tcaccaagct caccttccgt agcctgtaca tccgtcggac aggtccaggc agccgggaga 180

tgactgtgga cgggaggccg tctgaccagc tgggacgacg gttcgtgagc gactttccca 240

tatacgatgg ccgtggctcc ggcgcccacc tcgtcgtctg cttgcaggga gtcactgtcc 300

aaatcggcag ctgcgaccag ctagttagca tcgtcttcga ggccgagagg cttaagggct 360

tcacgctgct caccaacgga gtgataacgg atgggtcaga cgagtgggcc atctac 416

<210> 2419
<211> 403
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G5

<400> 2419

gcctggcaat ctcaagggtg cgtatTTTgt gaattctggg accgaagcga atgagtgggc 60
aatgttgatg gcccggtgt atagtgggaa tctcagtatg gttgcgctca gaaatgcata 120
tcatggcgga agtgccggtg cgattggatt gactgggatg cagacgtgga aatacccaat 180
tcctcagggt gaaatacatc atgtcatgaa cctgatacct tatcggggga ctttcgggtc 240
tgatgctgca gcttatgcta aggaagtcga agaacacata acttatggaa gttcaggaag 300
ggttgcaggc ttcattgcag aaacattcca aggtgtggga ggtgctgatg aactagctcc 360
tggataccta aagttagctt atgacattgt gcgcaaggct ggt 403

<210> 2420
<211> 357
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G6

<400> 2420

cccacgcgtc cgattattga gaccaactag caacatagaa agcacaatag ggtaccggca 60
atggcagcca aaatattgtg cctccttatg ctccttgggc tttctgcaag tgctgctact 120
gcgaccattt tcccgcaatg ctcacaagct cctatagctt accttcttcc cccgtacctg 180
tcaccagcgg tgtcttcggt atgtgaaaac ccaattcttc aacctacag gatccaacag 240
gcaatcacag ctggcatctt acctttatca cccttggtcc tgcaacaatc atcagcccta 300
ttacatcagt tacctttggt gcataatattg gcacaaaaca tcatggcaca acaacta 357

<210> 2421
<211> 429
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G7

<400> 2421

cactagcaac atagaaagca caatattgta ccaacaatgg cagccaaagt attttggtc 60
catatgctgc ttggtctttc tgcaagtgt tctacggcga ccatttatcc acaatgctta 120
caagctccta tagettgcct tctttgcgcg tacctatcac cagcgggtgc ttcggtatgt 180
gaaaacccaa ttcttcaatc ctatagtatc caacaggcaa tcgcatctgg catcttacct 240
ttatcacaca tgttccttca acaatcatca gccctattac agcatttacc tttgcatgca 300
ttcattgcc aaaaacatca gggcacatca actacaacaa cttgtgctag caaaccttgc 360
tgtctactct cagcaacaac atactctttc attcaaccaa ctagctgcat tgaactctgc 420
ttattattt 429

<210> 2422

<211> 167

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-G8

<400> 2422

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gagtagtcac caatcagaat aatcggaagc accaagggtt aggtttgatt cttgtgctat 120
ttttaagtac aataaagtaa aaaatgatga aaataaacga gactaac 167

<210> 2423

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H1

<400> 2423

gcaacataga aagtggaatc cagtagcaac aacagagcaa caatggcgac caagatggtt 60
tccgtcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctctatagc tttcccttct ccccatacc ttccatcaat gatagcttca 180
gtatgtgaaa acccagctct tcagccctat aggtccaac aagcaatcgc agcaagcaac 240
atacctttat cacccttggt gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300

gtacaaacca tcagggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
tctacactg 429

<210> 2424

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H10

<400> 2424

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ctaccaagggt attatccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaag agcagctgct tgcattccaac ccacttgctc 420
tggcgaacgt 430

<210> 2425

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-H11

<400> 2425

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ttttccatcc ttattgtcct tgctctttct gcatgtgttg ctaacgcgac catttttcct 120
caatactcac aagctcctat agctgccctt cttcccccat accttccatc aatgaccgct 180
ttagtatgtg aaaaccagc cttcaaccc tacaggatcc agcaagcaat cgcaacaagc 240
aacttacctt tatcacacct gttctttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcagggc agaacagttg cagcaactcg tgctaccagt gatcagccaa 360

gtagctctgg caaacctttc cccctactct cagcaacaac aatttcttcc attcaaccaa 420
ctgtctatac tgaaccctgc 440

<210> 2426

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H12

<400> 2426

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cgaccaagat actttccctc cttatgctcc ttgctctttc tgcattgtgtt gctaacgcga 120
caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
caatgatagc ttcagtatgt gaaaaccag ctcttcaacc ctataggctc caacaagcaa 240
tcgcagcaag caacatacct ttatcaccct tgtttcaaca atcgccagcc ctatctttgg 300
tgcagtcatt ggtacaaacc atcaaggcac agcagctgca gcaactcgtg ctacctgtga 360
tcaaccaagt agctctggca aacctttctc cctactatca gcaacaacaa tttctt 416

<210> 2427

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-H2

<400> 2427

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tggtgtacccc cagcaatttc ttccattcaa ccaactagca gcattgaact ctgctgctta 120
tttacagcag caacaactac taccattcag ccagctagct gatgtgagcc ctgctgcctt 180
cttgacacaa caacagttgt tgccgttcta cctgcacgct atgcctaacg ctggcaccct 240
cttacaactg caacaattgc tgccattcaa ccaacttgct ttgacaaact caacagtgtt 300
ctaccaacaa cccatcattg gtgggtgccct cttttagatt gcttatgagt tatagttcaa 360
taatgaagtt ttttggatga tgtttgtggc gtcccagaaa taagaaagta catttctaga 420
ttcaaaagaa aaaaaaaaaag ggcggc 446

<210> 2428
 <211> 453
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-018-Q1-K1-G1

 <400> 2428

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 ttcgcgcagt gctcacaatg ctccatagtag ctttcgattc tgtgctacgt gacctgtcac 180
 catggacagt gcttcggtat gtgaaaacgc atttcttcaa ccgatacggg atccaacatg 240
 caatcgcaact tggcatgtta cctttatcac gcttggttct ccaacagtca tcaggcctat 300
 tacagctatt acgtttgatg cattgattgg gacaaaacat tacggcacat cgactacaac 360
 aacttggtgct agcatacctt gctggctact gttatcaaca tcagtttatt ccatgcaacc 420
 aactagctgc attgaactct gcttcttatt tgc 453

<210> 2429
 <211> 478
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-018-Q1-K1-E3

 <400> 2429

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 aatgtatgta ttgcactgcc tctatggcgt cctatgggtac tattctagca tagtgcatgc 120
 tacctgcgac cattttgacc gcaatgctcg caagctccta tagctaccct tcttcccgcg 180
 tacctctcac cagcgggtgtc ttcaggatga gaaaacccaa atcttcaacc ctacaggatc 240
 caacatgcaa tcgcagctgg catcttacct ttatcaccct tgctcctaca acaatcatca 300
 cccctattac aacagttacc tttggtgcat ttataggcac agaacatcag ggcacaacat 360
 ctacaacaac ttgtgctagc aaacctcgct gcctactctc agcaacagca gtttcttcca 420
 ttcaaccaac taggttcatt gaactctgct acttattcgc aacaacaaca actaccat 478

<210> 2430

<211> 195

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E4

<400> 2430

cggctgcttt tagtggcggg tcagattcat gctatgatga attagtcaaa catacggatc 60
cccgtgacgt tagatcagga atggctaata atgcatacct tgggccagtg atcaaccac 120
aggcatagga tcgtatctgt aaattacttc aaagtgggtg taacagtgat gtcgtatat 180
tgcttgatgg aagaa 195

<210> 2431

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E5

<400> 2431

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gatccaacag gcaagcgcag ctggcatctt acctttatca cccatgttcc tccaacaatt 120
atcatcctta ttacaacagt cacctttggg gcatctattg gcacaaaaca tcatggcaca 180
tcaactacca caacttgtag tagcatacct tgctgcctac tatcagcatc agcagcatat 240
ttcattcaac caactagggt cattgaactc tggttcttat ttgcaacaac tgcaactacc 300
attcaatcag ctacctgctt gctacgctt agcaatctac tccattcaac caactagcat 360
cattcaactc ttttgcttat ttac 384

<210> 2432

<211> 201

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E6

<400> 2432

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ccgggccttt atactcagga attgataatg atacaaacct tggtagaatg atcaaccac 120
aagcatagga ttctatctcg acagctagcc aaagttggct taagagagat gctctgatac 180
tgctagatgg cagaaagatc t 201

<210> 2433

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E7

<400> 2433

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tgagtaccgc tgcttcgtcg gcggcctcgc ctgggccacg gacgaccact ccctccacaa 120
cgccttcagc acctacggcg aggtcctcga gtccaagatc atcctcgatc gggagacgca 180
gaggtcccgc ggcttcggct tcgtcacctt ctccacggag gaggcgatgc ggaacgccat 240
cgagggcatg aacggcaagg agctggacgg ccgcaacatc accgtcaacg agggccagtc 300
ccgcggcggc cgtggaggcg gcggcggcgg cgggtacggg ggtggccgtg gaggcggcgg 360
ctacggcggt ggcgggcgcc gtgatggcgg cggcggttac ggcggtggcg gcggctacgg 420
tggt 424

<210> 2434

<211> 293

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E8

<400> 2434

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aagtgttgct accgaaacca ttttaccaca atgctcacia gctcctatag cttaccgttt 120
ttccccatac ctgtcaccaa cagtgaactat caatgtgtga aaccccaatt gttcaaccct 180
acatgatcca acacgcaatc tcaacatgca ttttaaccatt atcactcttg tgtctttaac 240
aaccatcaaa cctattacag tagttaccct tttattcatt tttttggaca aaa 293

<210> 2435

<211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-018-Q1-K1-F1
 <400> 2435

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 ttcagaggct tactgaggca tcagagaaag ctaagatgga actgtcaacg ctgacacagg 120
 caaatattag cctgccattc attactgcta ctgctgatgg gccaaaacac attgaggcaa 180
 ccctctcgag agccaaatth gaggaactat gttcagacct tatagacagg cttaaaaactc 240
 ctgttaataa tgccttaaga gatgccaaagt tgtctgtcag tgatctagat gaagttattc 300
 ttgtgggtgg atccacccga atccctgcag ttcaagaact tgtgaggaag cttactgaca 360
 aagatcccaa tgttacggtc aaccctgatg aggttgtttc tcttggggca gctgtgcagg 420
 gtgggggtttt ggca 434

<210> 2436
 <211> 416
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-018-Q1-K1-F10
 <400> 2436

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 cactcgctcc tcgtggcctc cgccaccccc ttctgtgggag cgcgcatccac ggccgagcca 120
 gcctccctca tcatcgcccc ctactcggtc cccttccctc tccccactcc cgcctccgcc 180
 tcctccggtc gcgtcgtctc gggcgagctc tacgccccat cccccgcgcg gctcgccgag 240
 ctogacgccc tcgagggcac ccacatcggc gtctacgagc ggcgccccgat caccgtcgtg 300
 gtcgacgggt cgggagaggt ggtgcaggcg gaggcgtact tcgcgcaccc gagctacgcg 360
 gaggcgctct ggcggcgctg cggcggtgag gaggcggaga ttggagagta caccgt 416

<210> 2437
 <211> 423
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F11

<400> 2437

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acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaaccca attcttcaac cctataggat ccaacaggca atcgagctg gcatcttacc 240
tttatcacc ttgttctcc aacaatcctc agccctatta cagcagttac ctttggtgca 300
tttattggca caaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgctactct cagcaacaac agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
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<210> 2438

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F12

<400> 2438

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agagaggaca gtttactaat gggTgcggac tactatgaga cagaagctga taaaaaactc 120
cttgccgaaa aaggtggcat tcctattggt attgggaaaa attcatgcat caggagagca 180
atcattgaca agaatgctcg aattggagac aatgttaaga tactcaatgc tgacaatgtt 240
caagaagctg caatggagac agacgggtac tTcatcaaag gtggaattgt cacagtgatc 300
aaggatgctt tactccctag tggaacagtt atatgaagtg aacgtgagac atgcagctgt 360
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gttgga 426

<210> 2439

<211> 274

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F3

<400> 2439

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attgcactat caacacactc acaacctaata attaatattc cactcattac tactactcat 180

aattcaccaa ttcacaataa agtaacctta attatattca aatactttga actataatca 240

aaccttatac aaaaatttaa aactcctatc aata 274

<210> 2440

<211> 226

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F4

<400> 2440

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aagatattag ccttccttgc gcttcttgcc ctttttagtga ggcgaacaaa tgcgttcatt 120

attccacagt gctcacttgc tcttagtgcc agtatttcac agttccttcc accagttact 180

tcaatgggct tcgaacattc agccgtgcaa gcctacaggc tacaac 226

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<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F5

<400> 2441

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tattagccct ccttgcgctt cttgcctttt ttgtgagcgc aacaaatgcg ttcattattc 120

cacaatgctc acttgctcct agtgccatta ttccacagtt cctcccacca gttacttcaa 180

tgggcttoga acacctagct gtgcaagcca acatgcaaca acaagcgctt ggggcgagcg 240

tcttacaaca accaattgcc caattgcaac aacaatcctt gccacatcta acaatacaag 300

ccatcacaaac gcaacagcaa caacagttcc taccagcact gagccaccta gccatgggtga 360

accctgcccgc ctacttgcaa gagcaactgc ttgcatccaa cccacttgct ctggcgaaacg 420

<210> 2442
 <211> 177
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F6

<400> 2442

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 cgacaaggcc atgaggagcg aacaagaaga agaagaatcg tctgaggagc agaagga 177

<210> 2443
 <211> 438
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-F7

<400> 2443

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 tcattattcc acaatgctca cttgtccaa gttccattat tacacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
 cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
 caatacaaac catcgcaacg caacagcaac aacaattcct accagcactg agccacctag 360
 ccatggtgaa ccctgccggc tacttgcaac agcagttgct tgcacaaac ccacttgctc 420
 tggcanacgt agttgcaa 438

<210> 2444
 <211> 428
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-F8

<400> 2444

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ccagcgccag cgccgggacc tcctgcgtgc cgggggtgggc catcccgcac aaccgctcc 120

cgagctgccg ctggtacgtg accagccgga cctgcggcat cgggccgcgc ctcccgtggc 180

cggagctgaa gaggagatgc tgccgggagc tggcggacat cccggcgtag tgccggtgca 240

cggcgctgag catcctcatg gacggcgcca tcccgcggg cccggacgcg cagctggagg 300

gccgcctaga ggacctgccg ggctgcccgc gggagggtgca gaggggattc gccgncaccc 360

tcgtcacgga ggccgagtgc aacctggcca ccatcagcgg cgtcgccgaa tgcccctgga 420

ttctcggc 428

<210> 2445

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-F9

<400> 2445

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acaacggcaa ctgcaacagt ttctgccagc gcttagtcaa ctagccatgg tgaacctgac 120

cgcctaccta caacagcaac aactgctttc atctagcccg ctgcgtgtgg ccaatgcacc 180

tacatacctg caacaagaat tggtgcaaca gattgtacca gctctaactc agctagctgt 240

ggcaaaccct gttgcctact tgcaacagct gcttccattc aaccaactaa ctatgtcgaa 300

ctctgttgcg tacctacaac agcgacaaca gttacttaat ccattggcag tggctaaccc 360

attggctgct gccttcctac agcagcaaca attgctgcca tacaaccggt tctctttgat 420

gaatcctgt 429

<210> 2446

<211> 337

<212> DNA

<213> Zea mays

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<400> 2446

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atcgggcctt aataaccaag catgacagtg tgatgatgcc ttctactagt aaccagacat 120
cattagatgc tactgtatgc actgagagca gtgctgaata tatgaagcag gatgtaagcc 180
attgcgatga cttcaatatc agagtcaatg accaaagctt gaaccaagcg ttaagaaatc 240
agcatggatga ttctgtccca ttacctgaca tgggatcact agatgctaaa gttgacaagg 300
aaagtaattg gtgtttggaa acattgattg caaactt 337

<210> 2447

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A2

<400> 2447

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agtggcttcc caggctcgtg gttggttga ctgattgggc tgtcaatagt gagcaaatg 120
ttactcctag cattgctcca agatttgaac tcatgcagtc tgttgaggag cctgtttcca 180
gctggacaag cagtggggca cagcatgttg gtcctcatca caagcacaca ggtttaactt 240
tcccagatgt tgactctgaa ccatgtgtat ctgcatcaat ggatcaatgt ttttaataact 300
tcgattattc gaaatttctc agagaacaag aaatattctt aatgaatgga ctgaagactg 360
tcaacataac tggaaatggc tatctagagc agagattgca gcctggattg agtgggttac 420
agtctatggg ttattcatct cagataccta ttc 453

<210> 2448

<211> 382

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-A3

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cttgggtggt gtgcaagtgt tgctaccgca accattttcc cacaatgctc acaagctcct 120
atagcttccc ttcttcccc atacctctca ccagcgggtg cttcaatgtg tgaaaacca 180

attgttcaac cctacaggat ccaacaggga atcgcaacag gcattctacc attatcacc 240
 ttgntcctnc aacaaccgtc agccctatta cagcagttac ctttgggtcca attggtggca 300
 caaaacatca aggcaaca actacaaca cttgggctag caaaccttgc tgcatactct 360
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<210> 2449

<211> 180

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-A4

<400> 2449

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 ccctcaatgc tcacaagctc ctataacatc ccttcttctt ccatactttc catcatttat 180

<210> 2450

<211> 292

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A5

<400> 2450

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 agctgcaaca gtttctgcca gcgctcagtc aactagccat ggtgaaccct gccgcctacc 180
 tacaacaage acaactgctt tcacttagcc cgctcgctgt ggccaatgca cctacatacc 240
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<210> 2451

<211> 167

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A7

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ttcgtcagtg tatectattg gtatttgatt tctgaagccg atgtataata aataatcaga 120
gtcatagaat gctcgatgta ataaagtgtc catgggcttg ttgattc 167

<210> 2452

<211> 415

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-A9

<400> 2452

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cntggtgaac cctgtgacct acttgcaaca gcagctgctt gcatccaacc cacttgctct 120
ggcgaacgta gctgcatacc agcaacaaca acagctgcaa cagtttatgc cagtgtcag 180
tcaactagcc atggtgaacc ctgccgtcta cctacaacta ctttcatcta gcccgctcgc 240
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gactcagcta gctgtggcaa accctgctgc ctacttacia cagttgcttc cattcaacca 360
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<210> 2453

<211> 249

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-B1

<400> 2453

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gatgtcgacg acggtgagcc gtgcgtccnt cgaccagaag ctgcgccctcg ccaagcgtgg 180
ctcccagag ggcaccttgg ccggacccaa ggcggcagct gtgcgactat cgcttccgca 240
atcccaacc 249

<210> 2454
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-037-Q1-K1-B10

 <400> 2454

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 atttttgccc tccttgccct ccttgctctt tcagcaagcg ctgctacctc gacttttatt 120
 ccacaatgct cacaacaata cctctctccg gtgacagccg cgggatttca atacccaact 180
 atacaatcct acatggtaca agaggccatc caagcaagca tcttacggtc attagcatta 240
 accctccaac aaccatatgc tctattgcaa cagccatcct tagtgcattc gtatctccaa 300
 agaatcggcg cacaacaact acaacaacag ttgctacca caatcaatca agtagttgca 360
 gcgaaccttg ctgcttacct ncagcaccca cagtttcttt cattcaatca actagctgg 419

<210> 2455
 <211> 398
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-B11

 <400> 2455

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 gtcaaactct gctgctgacc tacaacagcg acaacagtta cttaatccat tggcagtggt 180
 taaccattg gtcgctacct tcctgcagca gcaacaacaa ttgctgccat acaaccagtt 240
 ctctttgatg aaccctgcct tgcagcaacc catcgttgga agtgccatct tttagattac 300
 atatgagatg tactcgacaa tgggtgccctc ataccgacat gtgtttccta gaaataatca 360
 atatattgat tgagatttat ctcgatatat ctctgaat 398

<210> 2456
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B12

<400> 2456

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cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcattcttac 240
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atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaacccttg 360
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cttctta 427

<210> 2457

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B2

<400> 2457

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aagagattgt ccttccttat gtccttgct ctttctacat gtgttgctaa cgcgacaatt 120
ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt 180
atagcttcaa tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
gcaagcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttggtg 300
caatcattgg taaaaccat tagggcaca cagctgcagc aactcgtgct acctctgatc 360
aa 362

<210> 2458

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B3

<400> 2458

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 ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt 240
 acctttatca cccttggtcc tccaacaatc atcagcccta ttacaacagt tacctttggt 300
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<210> 2459

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B4

<400> 2459

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 atgatgggcg ccggcgggct gtaccctac gcggagtacc tgaagcagcc gcagtgcaac 240
 ccggtggcgg cggcgcccta ctacgcccg tgtgggcagc ccaacgccat gttccaaccg 300
 gttcggcaac agtgcttcca gcaacagatg aagatgatgg acctgcaatc 350

<210> 2460

<211> 268

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B5

<400> 2460

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 ctgggaatcc agtggaaata aatctaccaa gaaacaggtc tccttcgcag agcgtccagt 180
 atcttttgtc aagtgtggaa ccattgtgga ctcccttact gaggcaatag ctggcccaag 240
 tggtgggtgat acctcgtgtg ttaaacct 268

<210> 2461
 <211> 414
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-B6

 <400> 2461

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tacaacagcg acaacagtta cttaatccac tagcgggtggc taaccattg gtcgctgcct  180
tcctacagca gcaacaattg ctgccatata accagttctc tttgatgaac cctgccttgt  240
cgtggcagca acccatcggt ggtggtgccca tcttttagat tacatatgag atgtactcga  300
taatggtgcc ctcatagcgg catgtgtttc ctaaaaataa tcaatatatt gattgagatt  360
tatctcgatt aaaaaaaaaat agtcaaaaat taaacagaaa aaaaaattcc tatt      414
  
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<210> 2462
 <211> 480
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-037-Q1-K1-B7

 <400> 2462

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agtgtctgtg cagcaaccat tgtcatgcaa tgattcgagc tacaaaccct acagtgtttt  180
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acaactacaa caacttgtgc tagcaaaccct tgctgtact ctcagcaaca gcagtttctt  420
ccattcaacc aactaggttc attgaactct gcttcttatt tgcaacaaca acaactacca  480
  
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<210> 2463
 <211> 418

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-B8

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 agtacaccat taaaaaaagg aggacctcat gtatggctac cgtgaaaaat gtgatcttga 300
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 aaaaaaaaaat caacttgagc cttccccctt cgacagcaac aaactgtacc aaccaaata 418

<210> 2464
 <211> 352
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A12

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 tgcactgaca agtccgccgt gctgaacagc ctcatctgcc acccgttctt gt 352

<210> 2465
 <211> 463
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G9

<400> 2465

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 gcttcagttt gtgaaaaccc agcccttcaa ccctacaggc tccaacaagc aatcgcaaca 240
 agcaacttac ctttatcacc cctggtcttt caacaatcgc cagccctatc ttggtgcag 300
 tcattggtac aaaccatcag ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc 360
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
 caactgtcta cactgaaccc tgctgcttat ttacaacaac aac 463

<210> 2466

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H1

<400> 2466

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 atagaggtat cctcactgtt tgagacggtg aatgagttgg aaaaggcaat atctttgctg 120
 aagaagagcc tgggaatgct tgagaggatg cctcaggcac agcacctgga gggcaatgtc 180
 gcagcgagga ttgggtggct gttgcttttg actggtaagg tctctgaagc tgtcccgtac 240
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 tatgtgtata acaacttggg tgctgcttac atggagatgg accgtccgca gtctgctgca 360
 cagatgtttg cgctcgctaa agaagtcatg gatgtctcct tagggcctca ccattcggat 420
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<210> 2467

<211> 439

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-H11

<400> 2467

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 ggcggtcgcg gctgccagcc accgcgcgcg gttcatctac cgccgcgggt gcctctgcca 180
 cctccgggttc acctgccacc tccgggtgcat ctcccaccgc cgggccacct gccgccgccg 240
 gtccacctgc caccgccggt ccatgtgccg ccgccgggttc atctgccgcc gccacctgc 300
 cactaccctn actcaaccgc ccggcctcag cctcatcccc agccacacc atgccgtgc 360
 caacagccgc atccaagccc gtgccagctg cagggaacct gcggcggttg cagcaccgcc 420
 atcctggggc agtgcgtcg 439

<210> 2468

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H12

<400> 2468

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 gaactctcct gcttatttac agcagcaaca actactacca ttcagccagc tagctgggtg 180
 gagccctgct accttcttga cacaaccaca gttgttgccg ttctaccagc acgctgcgcc 240
 taacgctggc accctcttac aactgcaaca attgctgcca ttcaaccaac ttgctttgac 300
 aaaccagca gcattctacc aacaacccat cattgggtggg gccctctttt agatttctta 360
 tgagttatag ttcaataata aagttttttg tctgatgttt gtgggttccc agaaataaga 420
 aagtacattt ctag 434

<210> 2469

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H2

<400> 2469

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 agatattttg cctccttatg ctcttggtc tttctgcaag tgctgtacg gcgaccattt 120

tcccacaatg ctcacaagct cctatagctt cctttcttcc cccgtacctc tcaccaacgg 180
 tgtcttcggt atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag 240
 ctggcatctt acctttatca ccttggttcc tccaacaatc atcagcccta ttacagcagt 300
 tacctttggt gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttggtc 360
 tagcaaactc tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg 420
 cattgaactc tgcttcttat ttgcaac 447

<210> 2470

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H3

<400> 2470

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 cctcttatac ctacaacaat tgttgccctt tgtccaactt gctttgacag accgagcggc 180
 ctcttaccac caacacatca ttggtggtgc cctcttttag attgcttatt agttgtaatt 240
 caataataaa gttttttgga tgatgtatgt ggccaaccag aaataagaag ttacatttcc 300
 agattttt 307

<210> 2471

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H4

<400> 2471

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 ccacaatgct cacaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg 180
 tcttcggtat gtgaaaaccc aattcttcaa ccctatagga tccaacaggc aatcgagct 240
 ggcatcttac ctttatcacc cttgttcttc caacaatcat cagccctatt acagcagtta 300

cctttggtgc atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta 360
gcaaaccttg ctgcctactc tcagcaacaa cagtttcttc cattcaacca actagctgca 420
ttgaactctg cttcttattt gcacaaacac a 451

<210> 2472

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H5

<400> 2472

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atgatttatg cgatcaacaa tttttttacc ctttgaaatt ttgaatactc ggtctcaaatt 120
tggtagattc agcatatagt tgccttttca gggaatgcat cacaagggtg taccacatta 180
cccatgatct acgtgctcgg agactccctg gcgcctgtct gagaacaaca ataacctggt 240
gacactgctc aaggccaact tactacgaaa caacatcgac tacctatggc acaaggccac 300
cggctgtttc agcaatggca agaactccat cgacttcctc ggaagaagggt atgggaaaag 360
catggaagta cgtcgtacca cggcgcctcg tgctatcgtc aacgatggag ctcgctcaac 420
aaccaca 427

<210> 2473

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H6

<400> 2473

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tcacaagctt ctatagcttt ctttcttctt acctacctct aaccaactgt gtcttctgta 180
tggtaaaacc caattcttca accctacacc atccaacaat caatcacagc ttgcaccta 240
cctttatcac ccttgcttct ccaacaatca tcatacctat tacaacagtt accttttgtg 300
cattttattgg cacaaaacat caaggcacia caactacaac aacttttgct aaccaacctt 360

gctacctact cttagcaaca tcaattttctt tcattcaacc aactaacttc 410

<210> 2474

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H7

<400> 2474

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cttccttatg ctcccttggtc tttctgcaag tgttgetacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcatac tctcagcaac atcagtttct tccattcaac caactggctg cattgaactc 420
tgctgcttat ttgcaaca 438

<210> 2475

<211> 316

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H8

<400> 2475

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ggttcagacg agtggtcgat ctacttgtga actggactgt tcgcgatggc gagaggcgtc 180
atatggagaa cgtatcttgc cgacactatg cgggtggaact ccgactagct tgccgcgtag 240
gctctctgca cgggtgtttcg tccgacagct tttggctcat tgtcagcaca tccatttgca 300
gcggacatta gctcca 316

<210> 2476

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-H9

<400> 2476

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ggccagcagg aaaccgaggc agcaggcacc agctcatact cagaccgagt cggcgtcttc 180

gtgacgagct ctgcaggcat tttgtccacg tacctaccta cctagaagta gaacaagaga 240

ggaggaacgc ctaaattctg tgccttggg caccgcgtac tgggactgga caggcgggtc 300

gggatccatc atccatcgtc agccagaaaa attgtcgtg tacaagcagc ctgggcagct 360

tgtgtgcgtg tgtgtgata agcctgatat cttgagctag ctgtggcata aactg 415

<210> 2477

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A1

<400> 2477

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atgtttcttc ccctctctc ttgaagattt cttggggaaa ccctaggtgg ctacactcca 180

gatcatgtct agtacatttc ttcttcttcg atgaagggtc ttgttgctca tcaaggggag 240

tgggaagtag cagcacatcc accttcattc tcataataat gctgccccaa cgcaaccatg 300

atttaattag aaacttcttg tcaaaagaat gttggtttta actaatcgtg cccacttgat 360

aatcaagtc aatgtggtaa tgggtggctt ccaatggcta ccagataatt aatggcttat 420

atgtttactt atcatg 436

<210> 2478

<211> 431

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-037-Q1-K1-A10

<400> 2478

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gcttcccttc ttccccgta cctctcacca gcggtgtctt cggatatgtga aaacccaatt 180
cttcaaccct acaggatcca acaggcaatc gcagctggca tcttacctt atcacccttg 240
ttcctccaac aatcatcagc cctattacaa cagttacctt tgggtgcattt attggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
caacagcagt ttcttccatt caaccaacta ngttcattga actcttgctt ctatttgcaa 420
caaacaacac t 431

<210> 2479

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-037-Q1-K1-A11

<400> 2479

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tactgcatgg tcaacaatac atagagatct ataggccaat cccttcgtat gccagtgttg 120
taaacagggt taaagtagct gggttgcacg acaaggggaa agcaactatt cttgagctcg 180
aaactaccac aagcctcaaa gagtcagggg aaattttatg catgaacagt gtgtaatgca 240
ggagtactat ctacttgctt ggtgctggag gggtttcaga ctcttcacgg ccatactcat 300
atgctaccta tcctgcta atcaagttctc gcattttctat tccaaattcg gcaccttctg 360
cagtatgcca cgaccagaca aagcaatccc aggcattggt atacaggcta tctggggatt 420
acaatccttt gc 432

<210> 2480

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G8

<400> 2480

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 cgctcgctcg ctccccgcgc ccagagacaa gcccgagac catggcggac cagctcactg 180
 acgaccaa at cgccgagttc aaggaggcct tcagcctctt cgataaggac ggcgactgtt 240
 gcatcacaac caaggagctt ggaactgtca tgcgttact gggtcagaac ccaacggagg 300
 ctgaactcca ggacatgatc aatgaggtgg atgccgacgg caatggcacg atcgacttcc 360
 ccgagttcct taacctcatg gcccgcaaga tgaaggacac cgactccgag gaggagctca 420
 aggaggcggt caaggtgttc 440

<210> 2481
 <211> 359
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-036-Q1-K1-F4
 <400> 2481

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 ttttgccctcc ttatgctcct tggctcttct gcaagtgtg ctacggcgac cattttcccg 120
 catgctcgca ggctccaata gcttcccttt ttcccccgta cttttaacaa gcgggtcttc 180
 ggtatgtgaa aacccaattc ttcaaccctt ccagattcca ccaggcatta ccagttggaa 240
 tttaacttta ataaccttgg tccttcaaca attattaagc ctattacatt agttaccttt 300
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<210> 2482
 <211> 436
 <212> DNA
 <213> Zea mays
 <223> . Clone ID: LIB3061-036-Q1-K1-F5
 <400> 2482

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 ctcgacttcg acgagggctc ggagcacgtg tcgtgcacgt ccccggcctc ggcctcatgt 120
 ctctctctta aagagctcgc cgcgcagcgc gatcagcaca ggaacgagat ggaccggctg 180

atccaggaac atgcggacag gctccggcgc gcgctggccg acactcggcg gcggcactac 240
 cgttcgctgg tcggcgcggc ggaggcggcg gctgctcaac gggtaaggga gaaggaggcg 300
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 gcggaagcag cggcgtggca ggccaaggac gccgcggatc agtcacggc cgcgcgctc 420
 cacgcgcagc tgcagc 436

<210> 2483

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F6

<400> 2483

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 gcaagctcct atagcttccc ttcttgctgc gtacctctca ccagcgggtg cttcgcgtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacagge tategcaact gacatcttac 240
 ctttatcacc cttgctcatt caacaatcat cagacctatt acaacagtta cttttggcgc 300
 attgattggc tcacaacatc atggcacatc aactactaca acttgcgcta gcataccttg 360
 ctgcctactc tcagcaacag cagtttcttg cattcaacca actaggctca ttgaactctg 420
 ctccattatat gcaacaa 437

<210> 2484

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F7

<400> 2484

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 ctggatgggt ccagggtaca gcagactcta tcagaaaatt tatctgggta ctcgaggatt 180
 attacagtca caaatccatt gacaacattg taatcttgag tggcgatcag ctttatcgga 240

tgaattacat ggaacttggtg cagaaacatg tgcaggacga tgctgatatc actatatcat 300
 gtgctcctgt tgatgagagc cgagcttcta aaaatgggct agtgaagatt gatcatactg 360
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<210> 2485

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F8

<400> 2485

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 agtgaagtcc actagcacca tcttaccacc aatggcagcc aagatttttg cgctccttgc 120
 cctccttget ctttcagcaa gtgttgctac cgcgactatt attccacaat gctcacaaca 180
 atacctctct ccagtgatag ccgcgagatt tgaataccca tctatacaat cctacaggct 240
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 tgccctattg caacaaccat ccttagtgaa tctgtatctc caaagaatca cagcacaaca 360
 actacaacaa cggttgcttc caacaattaa tcaagtagtt gcagcgaacc ttgctgctta 420
 ccttcagcaa caacaatt 438

<210> 2486

<211> 469

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F9

<400> 2486

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 tggctaccaa gatattaggg ctccttgggc tgcttgccct ttcagcgagc gctgcaaatg 120
 cgaccattat tccacagtgc tcaactgtct ctatagccat tattctacag ttgctcctat 180
 caccaacttc aatgggctta tgacataacg ccgtgcaaga actactagat gaaactacgg 240
 gcttgcgagc agcggcatta cacaaccata acgctcaatt gctacaacaa atactaggca 300
 cattacaaca tacacactca ttggcactca tcagacacaa acaacaacag gcacatgcc 360

ctactagaac cacgtactac gcggacgaac gctgtctact attagcaaca gcagctgctt 420
gcattcaaac aactagctca ggcgaacgta gctgcatacc agcaacaac 469

<210> 2487

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G10

<400> 2487

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gaagcgcata caagcttcgg aaggtgcccc tccgcggctc gaacgagggg aggggacgcc 180
gaggacaatt acggccatgg aagccgccct cgacgctatg ctgcgcgcgc cgagccatgc 240
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tgctctcgga tgggcccgtg cttcaattgt caaaaaagg gttataaaga acatgatgcg 360
caacattgta catggaaata gctttgcatt tctttgtgac aacatacatg agcttgagca 420
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<210> 2488

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G12

<400> 2488

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ctgccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
tcattattcc acagtgtca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cattcagccg tgcaagccta caagctacaa ctagcgcttg 240
cggcgagcgc cttacaacaa ccaattgcc aattgcaaca acaatccttg gcacatctaa 300
ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcca tcaactgagcc 360
acctagccgt ggtgaaccct gtcacctact tgcaacagc 399

<210> 2489
 <211> 392
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-036-Q1-K1-G2

<400> 2489

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 agaggggtcct caactggacc gcangaccgn ctggcgacct caagccttgg tagcatcgta 180
 cgttcgtgcg cccttatagt taccatggct gcattgcata aactgctga caacaagcca 240
 attaagtgtg cttttttttg gtattcttct ttttcttttc ttccttatat atagctgcaa 300
 taccgtatac gttcatctct ctctctatct ctttatatat agatgatgag aaccatgtgg 360
 ataccgtaat cgaaatctac aacagtttac tt 392

<210> 2490
 <211> 436
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-036-Q1-K1-G3

<400> 2490

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 caacaacaac tactaccatt cagccagcta gctactgcct actctcagca gcaacaattt 180
 ctccatttta accaattggc cgcactgaac ccctctgctt atttccagca gcaaatacta 240
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 ctcccgttct accagcagtt tgtggctaac cccgcaaccc tcttacaact gcaacagttg 360
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<210> 2491

<211> 397
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-036-Q1-K1-G4

 <400> 2491

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 tcgatctcgg ttgcttgcta gtccagactc cagacatggc tatatatata tagctggtgc 300
 taataaatag gagtataatc gtcatatcga tcggttgctg gtggaatgcc aatcatgtgt 360
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<210> 2492
 <211> 436
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-036-Q1-K1-G5

 <400> 2492

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 cgcgcacaca gagatgtcga cgacggtgag ccggtcgctc ctcgaccaga agctcgccct 180
 cgccaagcgt tgctcccgag aggcgacct cgccggagcc aaggcggcag cgggtggcgac 240
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 catcaacccc accggccagg cgctcatcgt ctccacggtg gctgggatgg cctacttcat 360
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 gcacctcaag aacacc 436

<210> 2493
 <211> 320
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G6

<400> 2493

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tggctaccaa gatattatcc ctcccttgctc ttcttgcgct tctagcgagc gcatcaaatg 120
cgttcattat tccacaatgc tcacttgctc caagttccat tattacacag tgccctctat 180
cagttactat aattggctgc atatacctag ctgaccaagc ctatatgcta ctacatgtct 240
ttgctgtgtg cgttctacat caactaatta tatatatgct gcatcactgc tacgcacatc 300
tatctatcta tactattata 320

<210> 2494

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-G7

<400> 2494

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agtcattggt acaaaccatc agggcacaac agctgcagca actcgtgcta cctctgatca 180
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accaactgtc tacactgaac cctgctgctt atttgcagca acaactatta ccatttagcc 300
agctagctac tgccctactct cagcaacaac aacttcttcc atttaaccaa ttggccgcac 360
tgaacccgcg tgcttatttg cagcagcaaa tactactacc atttagccag ctagctgcag 420
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<210> 2495

<211> 214

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F3

<400> 2495

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cattcaacca acttgctttg acaaaccag cagcggttcta ccaacaaccc atcattgggtg 120
 gtgccctctt ttagatttct tatgagttat agttcaataa taaagttttt tgtctgatgt 180
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<210> 2496

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C9

<400> 2496

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 actctgetgc ttatttgcaa caacaattac cattcagcca actagttgct gcctaccccc 300
 agcgattggg gtgctttcaa ccaacttgca acatttgact ctgctgggta ttacagggg 360
 gcaacaactt c 371

<210> 2497

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D1

<400> 2497

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 gtggtggttt gaacctcaac tgaatacagt atttgaccaa aagggtgtta attccctcat 240
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 gagattttcaa gggagatggg ttagcattat tccaagctg tcatggatat cagtatcgca 360
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ctagggtttg cgtcatt

437

<210> 2498

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D10

<400> 2498

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cctatagctt cccttcttcc ccctacattt ccatcaatga tagcttcagt atgtgaaaac 180
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agggcacagc agctgcagca actcgtgcta cctgtgatca accaagtagc tctggcaaac 360
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cctg 424

<210> 2499

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D11

<400> 2499

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ttgcttgcat ccaaccactt tgctctggca aacatagtgt cataccaaca acaacaacaa 180
ttgcaacagt ttctaccatc gctcagtcaa ctagccatgg tgaaccctgc cggctaccta 240
caacagcatc aactgatttc atctagccct ctgcgtgtgg ttaatgcacc tacataacctg 300
cagcaacaat tgctgcaaca gattgtacca gctctgactc acctagctgt ggcaaaccct 360
gctggctact tgcaacaact gtttccattc aaccaactga ctgtgtcgaa ctct 414

<210> 2500

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D12

<400> 2500

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ctcacttgct cctagtgcc a ttattccaca gttcctccca ccagttactt caatgggctt 180
cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga ggcgcttaca 240
acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac aaaccattgc 300
aacgcatcat caacaacaac aacagtttct gccatcactg agccacctag ccgtggtgaa 360
ccctgtcacc tacttgcaac agcagctgct tgcattccaac ccacttgctc tggcgaacgt 420
agc 423

<210> 2501

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D2

<400> 2501

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caaactcaac ggcaacgaca ggaagcgatt attcaacatg attaatgac atccatctgt 180
gtatgaaata atggctgacc ggaagggaag ggagaataat cctggtgttg ataacagcag 240
caaatccagg cactcaacga agcgatcaaa tgatggaaag ataaagaact caagagtggc 300
agttggtgaa tgtaggtatg agaattgatga agaccacagc gaaacccttt gtgggttctg 360
cagtggctct tacaactcaa gtgagttctg gattggatgc gacatttgtg agcgggtggt 420
ccacggcaaa tgtgtgagga t 441

<210> 2502

<211> 439

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-018-Q1-K1-D3
 <400> 2502

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 gttggatgca ccaagctata ttctgttat gcaacatgct cgaaacagag agctccgcga 180
 agaagtttat catgcttata tgacccgcgc ctcaagcagt gaacttgata acaccaacat 240
 catctgccaa attctaaagt taaggctaga gaaggctaaa cttcttggtt acaagaacta 300
 tgctgaggta agcatggctc agaaaatggc aactgttgag cgagtagaag agcttctcga 360
 gaagctgcgt gctgcttctt gggatcatgc tgtcaaagat atggaagatc taaaagtctt 420
 tgcgaaagat tctggttct 439

<210> 2503
 <211> 250
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D4
 <400> 2503

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 ggccgtggag gccgcccgg cggtacggt ggtggccgtg taggcagcgg ctactgcggt 180
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 agtatctaca 250

<210> 2504
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D5
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tatgtgaaaa cccaattggt caaccctaca ggatccaaca ggcaatcgca gctggcatct 120
 tacctttatc acccttggtc ctccaacaat catcagccct attacagcag ttaccttttg 180
 tgcataatatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 240
 ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 300
 ctgcttctta tttgccacaa caacaactac caattcacca gctacctgtt gcctaccccc 360
 aacaatttct tccattcaac caactggcag cattgaactc ttctgcttat ttacagcagc 420
 aacaactact a 431

<210> 2505
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D6

<400> 2505

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 cgacgccgac gacgtacgag tcggtgggcg gcggtgagaa ccgcacgcgc acggacctgc 180
 ggtcgcggga ggaccagggc gccatccaga tcgagaaggt gcaggacaag gtcgacgatg 240
 ccgcggcgcg tggggtagac cacagcacct tcggcgccaa caaggagggc cgcgacgaca 300
 aggccgatgc cggagcaacc ggcaccggca caggcccgtg attttgtgcc ctttcgcagt 360
 gtacctgac gtgtgtgtac gatagctttg ggtccggtgc ttggtgctc t 411

<210> 2506
 <211> 434
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
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<400> 2506

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accagtactg aatccagaac ctggggctcc tactgattgg caggggaggt accttggtgt 180
catcgattac tcggaatca tcctttgggt actagaaaat gctgagcttg ctgctgttgc 240
actctcggct gcatcggcaa ctgctgctgg agttggcatg ggtgctgttg gtgctgttgg 300
ggtggcagct ttgggaacaa ctggcccagc tgctgtagct tgcttaactg cagctgcaat 360
tggngcttct gttgctggtg gattaactgc tgaaaagggt gtggcgaaag atgggctaac 420
tgctgcagat catt 434

<210> 2507
<211> 270
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-D8

<400> 2507

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cctcgtggcc gccgacctcg ccctcgccgc cgccctgct cgcgcggcag ctgggcggcg 120
ggcgcgcccc gctgctgggc ggggtgaacc cgatccctga cgcgagcgac tcgcacatgc 180
aagaactagg cgggtggacg ctgtggcagg cgaatcaaca aaagctggcc gacgacggac 240
tgcgattccg tcgcatgacg cgcggcgagc 270

<210> 2508 ..
<211> 358
<212> DNA
<213> Zea mays

<223> unsure at all n locations
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<400> 2508

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aaacattgaa gatttgttga gtttaccagc aggtcatgtg cagatgaagc catccgaatg 120
ctgaatggga gtcaagttgg tgggcagaaa gttcggcttt catggggccg tagtcctcaa 180
aacagacagg cttctcagca tgatgccaac aaccagtata atgggaacag ctattatgga 240
taccaacagc cgggttatga aggttatggc tatgggtgctt ccagtgcaca agaccaatc 300
atgcaaaact actacggata ctctggttgt ggtaactatg agcagcagca tccaacac 358

<210> 2509
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E10

<400> 2509

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gcaccaatta ttccacacag ctgacttgct tctagcgcca ctattatcac agctactgct 180
accacatact ctaatgggct actatcatatc cgccgtgcaa gcctactggc tacaactagc 240
actotcaacc atcgcggttac ttcacccaat cgccatttg catctacact gcttgctaca 300
tcttactcta caaaccatcg cctcgctaca tctaccacat cagcctctgt catcactgat 360
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<210> 2510
 <211> 376
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-E11

<400> 2510

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actatcccaa acctttctcc ctactatcat caacaacaat ttcttccatt caacctacta 180
tctacactaa acctactcc ttattttcat catcaactat taccattcat cctactatct 240
actgcctact cttatcaaca acatcttctt ccatttaacc aattatccat actaaacctc 300
gctacttatt ttcaacatca tatattacta ccatttatcc ttctatcttc atcaaatcct 360
tccttcttct tgactc 376

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<210> 2511
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C8

<400> 2511

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ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggg 300
ccatttgttg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagccaaccc 360
tgctgcatac tttcagcaac atcagtttct tccattcaac caactggctg cattgaactc 420
tgctgcttat ttg 433

<210> 2512

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B2

<400> 2512

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ggaagaggag gaggaagaag aggaagagga ggaagaggaa gaaccaatgg aagacgagga 120
aatggaagac ggaattcagt ctgtcgatac catctcaagt actccaactg gtgttgaaac 180
acctgatgtt atcgaccttc ggaagctgca gaggaaggag actgacaagc aggcagaacg 240
gccgctgtac caggttcttg aacaaaagga agaaaggatc gcccctggga ctctatatgg 300
gtcaagccat acgtatgtgt tgggaacaca agataaatca tcagctccga aaaggggtga 360
tctgcttaag aatcaaaagt cagacaaggt ggacgtcacc atccaacccg aggaactgga 420
agccatggat gatgttctgg c 441

<210> 2513

<211> 367

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B3

<400> 2513

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taagatagta ttgatttgtt tctagtgcc a taattctaaa cagcgttgta ttaagtatgt 180
gaaaacgcta ttattataca gtacaggatg catcagggat tcacataacg catgttacca 240
gtatcatact tgatcctata acacaagtga gacatattac agcagttaat ttaagcgcat 300
atactatcac aaagcatcaa cgcccaccac ctccgacaac gtgagctatg aaacctttat 360
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<210> 2514

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B4

<400> 2514

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cctatagctt cctttcttcc ccctacatt ccatcaatta tagcttcaat atgtgaaaac 180
ccagctcttc aaccatata gcttcaaaaa gcaatcgag caagcaacat acctttatcg 240
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agggcacaac agctgcagca actcgtgcta cctctgatca accaagtagc tctggcaaac 360
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<210> 2515

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B5

<400> 2515

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 atttgggtggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 180
 ctgcatactc tcagcaacat cagtttcttc cattcaacca actggctgca ttgaactctg 240
 ctgcttattt gcaacaacaa ttaccattca gccagctagt tgctgcctac cccagcaat 300
 ttcttccatt caaccaacta gcagcattga actctgctgc ttatttacag cagcaacaac 360
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<210> 2516
 <211> 144
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B6

<400> 2516

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 taccgccgctc ggtgcatctg ccac 144

<210> 2517
 <211> 334
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B7

<400> 2517

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 catgctccta taccttcta tcttacccta tatcaatcaa cagcagagta ttcagaatgt 180
 gaaaacccaa ttacttaaac cctaccagat ccaacacgca ataacaatac gcactcttacc 240
 tatatcacgc ttgttaatgc aacaaccgat aaacctatta caactattac ctttgggtgca 300
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<210> 2518
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
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<400> 2518

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catggatgct gaaaaggcaa gtcgagttgt ccaatctctt tttggagcat tgtcttcacg  180
atatgaaaat agcaaagggtg gcaagctgat gagtaacgca gcaccagaaa aaatgcctac  240
tgagaatgag caaatagtca atgagatact acatgatata catggttctt ttgctgacat  300
ctctgatggg gctggtaccg ttgaagggtga cttcaaagta aaagtcaagg aaacaatgga  360
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tctggtcag                                     429
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<210> 2519
 <211> 452
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C1

<400> 2519

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gccggagttg ccggtggcca ccgcttcttt ggagccaccg cagcccatgg tggtctaaag  180
gagaggagag gagagagaga gagagcggcg gagatggaaa aaaatgcaac gagaggacga  240
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catgcatgca tgacgtgaca aatttaggga gaccgtaacc aaacaaaagt tgtcgttttt  420
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<210> 2520

<211> 334
<212> DNA
<213> Zea mays

<223> unsure at all n locations
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accctgctgc ttatttgcag caacaactat taccatttag ccagctagct actgcctact 240
ctcatcaaca acaacttctt ccatttaacc aattggccgc actgaacccc gctgcttatt 300
tgcagcaaca aatactactg ccatttatcg aact 334

<210> 2521
<211> 258
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C11

<400> 2521

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ttcaaccata tatgcttcaa caatcaatcg caacaagcaa cataccttta tcaccctttt 180
tttttcaaca atcaccatcc ctatcttttt ttcatcatt aggtcaatcc atcattgcat 240
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<210> 2522
<211> 199
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C12

<400> 2522

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agatggactg acatagttgc ggcgccacga gatgcctgtg cggactcgcg tcggctgtcg 120

gggcgtaggc tggacctga taatagctgc ttcccagagcc ggcacgggtg attcctgggt 180
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<210> 2523

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C2

<400> 2523

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gctccttggg ttttctgcaa gtgctgtac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcctttcttc ccccatacct ctccaccagc gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactggct gcattgaact ctgctgctta 420
tttgcaacaa caactaccat tcagt 445

<210> 2524

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C3

<400> 2524

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atgctgctta ctctttatgc aagtgtgct accgcaacca ttttcccaca atgctcaca 120
gtcctatag ctccctttct taccctatc ctctcaccag ctgagttct agtatgtgaa 180
aaccgaattc ttcaacccta caggatccaa caggcaatcg cagcaggcat attaccttta 240
tcacccttga tcctacaaca accgtcagcc ctattacagc aactaccttt agtgcatttg 300
ttggcacata acattaaggc acaacaacta caacaacttg tgctaggaaa ccttgctgtc 360
tactctcaac aacagcagat tttttcattc aaccaactgg ctgcattgaa ctctgctact 420

tatgttgaac aacaacta

438

<210> 2525

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C4

<400> 2525

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tttggcctcc ttatgtcctt tgggtcttct gcaagtgtg ctacggcgac cattttccca 120
caatgtcac aagctcctat agcttccctt cttccccgt acctctcacc aacggtgtct 180
tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca gcaagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgtg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca ac 442

<210> 2526

<211> 299

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C5

<400> 2526

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atctccaaag gggggaaggt agggccgaac cggtgcagcg cctgcaggaa gaggggttga 120
cttacgggat tcaactgccg gtgtgggaac ttgtactgcg cactccaccg ctactccgac 180
aagcacgact gcaagttcga ctaccggact gctgccaggg acgccattgc caaagcta 240
ccgctgggtga atgcagacaa gctcgacaag atctaggggg ggtttcctac ggttgggta 299

<210> 2527

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-C6

<400> 2527

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ttagagaect tgccttggtg gggcagggga cttgggacga cagagagggg agggcggagt 120
tggtgagcga gcacgggatc agctggtgac ctcagaggct gtttgcctcg gggggcgggg 180
gaattcttta gcaccccatc ttccacatgt gtttcgactg gctgctgctc ttaggttgg 240
taatatactt ggatctctga ctctagaccg ttccacgaaa tctccagtcc tttcttgctc 300
ttggaggagg aaggctgctg cttgagcagg agactggaga catgggtagc tacgctaagc 360

<210> 2528

<211> 350

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-C7

<400> 2528

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ccctggtggc cgtggccgtc tgccaaggcg aggtcgagcg gcagaggctc agggacctgc 120
agtgctggca ggaggtccag gagagcccgc tcgacgcgtg ccgccaggte ctcgaccggc 180
agctaaccgg cggcggcggc ggcggcggcg ttggcccgtt ccggtggggc accgggctcc 240
ggatgcggtg ctgccagcag ctccaggacg tgagccgca gtgccgctgc gccgncatcc 300
ggagcatggt caggggatac gaggaggcca tgccgncgct ggagaaaggc 350

<210> 2529

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B12

<400> 2529

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agggcacaac aactacaaca acttgtgcta gcaaacctg ctgcctactc tcagcaacag 120

cagtttcttc cattcaacca actagctgca ttgaactctg cttcttattt gcaacaacaa 180
 caactaccat tcagccagct acctgctgcc taccctccagc aatttcttcc attcaaccaa 240
 ctggcagcat tgaactctcc tgcttattta cagcagcaac aactactacc attcagccag 300
 ctagctggtg tgagccctgc taccttcttg atacaaccac agttgttgcc gttctaccag 360
 cacgctgctg ctaacgctgg caccctctta caactgcaac aattgctgcc attcaaccaa 420
 cttgg 425

<210> 2530

<211> 237

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-017-Q1-K1-H6

<400> 2530

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 taattttaan tgganattgg aatatattaa ttatttttat aattttttaa ttaatattta 120
 tatttttatt ttaattttaa naagaattta atgtttttaa cacaacagac aacaccgctc 180
 accgcttata tatatatata gatgggttcc gaggggcctt ctcccctcac cgtccac 237

<210> 2531

<211> 238

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H7

<400> 2531

gtattgggaa aaattcatgc atcaggagag caatcattga caagaatgct cgaattggag 60
 acaatgttaa gatactcaat gctgacaatg ttcaagaagc tgcaatggag acagacgggt 120
 acttcatcaa aggtggaatt gtcacagtga tcaaggatgc ttactccct agtgggaacag 180
 ttatatgaag tgaacgtgcg acatgcagct gtgtgtctcg acattcgaca atgatcag 238

<210> 2532

<211> 254

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H8

<400> 2532

cgacgccacg cgtccggtgg tgggaaaaat tcatgcttca ggttttcaat cattgacaag 60
aatgctggaa ttggggacaa tgtaaggga ctcagtgtg acaatgttca agaagctgca 120
atggagacag actggtactt catcaaagg ggaattgtca cagttatcaa ggatgcttta 180
ctccctagtg gaacagttat atgaagtga cgtgcgacat gcagctgtgt gtctcgacat 240
tcgacaatga tcag 254

<210> 2533

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H9

<400> 2533

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tcagggccta ctagtggcag cttggcgttg cagtcaagtt catcagctcc ccagaaaaca 120
atcgtttctg ctttgcaagt caatcaaact gagccagtga agaagtttga gccagatct 180
aaactgtggt ctgatacttt gagccgaggt ctagtcaatc tggacatttc tggaccaaaa 240
gcgaatcctc atgctgatat tggagttgac tttgattcaa tcaatcgcaa ggagaaaagg 300
caggaaaaga aaatcaacca agcacctgtg gtgtctacag tcaccatggg caaggccatg 360
ggagctggtt ccggcattgg tcgggctggt gtaagtgcaa tggcaccttc tcctaacca 419

<210> 2534

<211> 224

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A1

<400> 2534

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tatgccagcg ccgccccaga tacgccaggc ccaccaaagc agcattgttg gcaactatag 120
gccaaatact tgctctccct ggggtttctg taaaaggaga gaaactgctt ctttcaccac 180

gctttacgcg ggcctgaccc agacccggac ccagacccag cagc

224

<210> 2535

<211> 429

<212> DNA

<213> Zea mays

<223> - Clone ID: LIB3061-018-Q1-K1-A10

<400> 2535

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ggggtttcaa caaccattgt ggtcatgaac ctaagccaat ttgaccaca ttacattcac 120
caagcaatct acaacatggt tcaatccata atccaggagg agcaacaaca acaaccatgt 180
gagttatgtg gatctcaaca agctactcaa agtgcggtgg caatcttgac agcagcaca 240
tacctaccat caatgtgcgg cttgtaccac tcatactacc aaaataatcc atgcagcagc 300
aatgacatta gtggtgtttg caattgaaga attgtgtcta cctagccgtt atactcctat 360
aacggtgtta agcaataaag taccatacat tatgatgttt gtactatgat atttgaataa 420
gaataactaa 429

<210> 2536

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A11

<400> 2536

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atcctgctcg agccaatggc cacatcttca atgttgggaa tccgaacaat gaagttaccg 120
ttagggagtt ggcccaaagt atgacagagg tctacgcaa tgtctcaaga gaggcaccgc 180
tggatgagcc catgattgac gtgagctcga gtcagttcta cggcgaaaga tacgatgata 240
gcgacaagag gatccccgac atgactataa tcaacaagca gctagggttg aacctataga 300
cgctgtcaa ggatctgctg gagacaacgc tgacgtatca gcacaagaca tacaagaag 360
ctgtgaaaag gcaaatgtcg catgcttcag cgtcgactta gatagcgtgc ccctggctct 420
cgt 423

<210> 2537
 <211> 443
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-018-Q1-K1-A2

 <400> 2537

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 ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
 tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
 cgggcagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
 caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
 ccatggtgaa ccctgccgnc tacttgcaag agcagctgct tgcattccaac ccacttgctc 420
 tggcgaacgt agttgcaaac cag 443

<210> 2538
 <211> 428
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-018-Q1-K1-A3

 <400> 2538

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 ttcaatcgtc ggcattggcg tcgtattgca tagtggggct ggaaacaaga atgccttcaa 120
 agcacttatt gctgcagaat acagtgggat caaggttgag ttgaccaagg attttgagat 180
 ggggtgtctcc aacaagaccc ctgagtttct taagatgaac ccccttgga aggttcctgt 240
 tctggagact cctgatggcc ctgtttttga gagtaatgct atcgcacgct atgttgctcg 300
 cttgaaagat gacaaccctc tttttgggtc ttcccgatt gaacaagccc acgttgagca 360
 atggatggat tttgccgcaa cagaagttga tcctggtgtt gcatggtact tgtatccaag 420
 gcttggtg 428

<210> 2539
 <211> 444
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A4

<400> 2539

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 ccaagggtttt acccctcctt gcgcttcttg ccttttttgt gagcgcacca aatgcgttaa 120
 ttattcaaca ttgctaactt gttcttaggg ccataattca acagttcttc caaccagtta 180
 cttaaattggg cttgaaacac tatattgtgc aggccaacat gcaacaacaa gcgtttgcgg 240
 agagcgtttt acaacaacca attgcccaat tgcaacaaca atccttgcca catctaacaa 300
 tacaagccat cacaacgcaa cagcaacaac agttcctacc agcactgagc cacctagcca 360
 tgggtgaacc tgccgtctac ttgcaagagc agctgcttgc atccaacca cttgctctgg 420
 cgaacgtaat tgcaaacc aaac 444

<210> 2540
 <211> 336
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A5

<400> 2540

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 gggctaccaa gatattagcc ctacttgccg ttcttgccct ttttgtgagc gcaacaaatg 120
 cgttcattat tccacaatgc tcacttgctc ctagtgccat tattccacag ttcctccac 180
 cagttacttc aatgggcttc gaacacctag ctgtgcaagc caacatgcaa caacaagcgc 240
 ttgcggcgag cgtcttataa caaccaattg cccaattgca acaacaatcc ttgccacatc 300
 taacaatata agccatcaca acgcaacagc aacaac 336

<210> 2541
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A6

<400> 2541

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tgctacttta tgctccttgg tctttgtgca agtgctgcta cggcaaccat tttcctgcaa 120
tgctcgcaag ctctatagc ttcccttctt ccgccgtacc tctcaccagc ggcgtcttcg 180
gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcac agctggcatc 240
ttacctttat cacacttggt cctccaacag tcatcagccc tattacatca gttacctttg 300
gtgcatttat tggcacacaa catcagggca caacaactac aaçaacttgt gctagcaaac 360
cttgtgcct actgtcagca acagcagttg cttccattca accaactagc tgcattgaac 420
tctgat 426

<210> 2542

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A7

<400> 2542

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taggcacca atcaaactg caacatcaat tatctaactc caaaaaccat gaagctgggtg 120
cttgtgggtc ttgctttcat tgctctagta tcaagtgtct cttgtacaca gacaggcggc 180
tgcagctgtg gtcaacaaca aagccatgag cagcaacatc atccacaaca acatcatcca 240
caaaaacaac aacatcaacc accaccaca catcaccagc agcagcaaca ccaacaaca 300
caagttcaca tgcaaccaca aaaacatcag caacaacaag aagttcatgt tcaacaaca 360
caacaacaac cgcagcacca ccaccaaca caacaacaac agcaccaaca acaacatcaa 420
tgtga 425

<210> 2543

<211> 182

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-A8

<400> 2543

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gttccaagaa attaaccctt ctttggcctc ttggcctttt aaggaacccc accaaaggcg 120
tcaataattc aaaaggggta attggttcta agggccataa ttcaaaagtt cttccaacaa 180
gt 182

<210> 2544

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B1

<400> 2544

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gccgcgctca tgcagccggc gaagggtgcg ctcgtgggtcg acatgctcaa cgagggcgcc 120
gcggaacacca agatcaactg tgtccgcctc atccgcatcc tcatgggtcga gaggggtttc 180
cgcccgagaga cgggtggcgag cctcagcctc ttggtcggcg tcatgcgcct catccgggac 240
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cacaggccag cgaggtgtat gattgttagc atcgggtgcgg tgccgcagct ggcggaattg 360
ctgccggagc tagcgacaga gtgtgtcgag ccggccttgg acatcttgga tgccctggct 420
gcgggtccag aggggaggat 440

<210> 2545

<211> 423

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-018-Q1-K1-B10

<400> 2545

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acgagcctaa cttcaagaag gtgattgggtg aggtcaatca ggcagagtct gcacctccta 120
ttccgaaaaa ggctgctcct cctaaggagc caaaggcaaa ggatgtcaag aaggaggctc 180
caaaggaggc cccaagcca aagggtggttg aggcaccagc agaagaggaa gcaccaaata 240

caaagccaaa gaatcctctt gacttgctgc caccaagcaa gatggtcctt gatgactgga 300
agaggctata ctcaaacaca aagactaact tccgggaggt tgccatcaaa ggtttctggg 360
acatgtacga cccantaggc tactctttgt ggttctgtga ctactagtac aatgatgaga 420
aca 423

<210> 2546
<211> 280
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-018-Q1-K1-B11

<400> 2546

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gcacagtgtt tcttgctgaa tgggcttctc ttccttggtg gcttacttac actcacatca 180
gtggtcattc caactctact gtggatacta cctgatctat tctatcaaac agcatgacat 240
ctttatgaac acatgtcatc catatctatc tattcattct 280

<210> 2547
<211> 241
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H5

<400> 2547

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aatcatctgt tctcacaaaa gaagggtgcaa ccaagggtcga aatcgattca gctcaaacac 120
aacacacaaa ttcggtcttg caagggtcagg agcagatgac cttgaggaac aacctgactg 180
aaagcgctga ttctgattcc actgttcaga agccgatgat gtgggtccca tcaactcaatg 240
g 241

<210> 2548
<211> 446
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D9

<400> 2548

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gcggggttgg tctttctgca agtgctgcta cggggaccat tttcccacaa tgctcacaag 120
ctcctatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
acccaattct tcaaccctat aggatccaac aggcaatcgc agctggcatc ttacctttat 240
cacccttggt ccttcaacaa tcatcagccc tattacagca gttacctttg gtgcatttat 300
tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
actctcagca acaacagttt ctttcattca accaactagc tgcattgaac tctgcttctt 420
atttgcaaca acaactacta ccattc 446

<210> 2549

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E10

<400> 2549

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ttgtgctcgc ccaatctccc ttttcttcaa tccgggattg aggtccttct ctggtcatgc 120
tggtgccatt ctctctacga ttgtctctgt gtctcggttg agtcogtgct cctctgctcg 180
ggttcttccc tgctcgccag tggagcttcc tccctgttgc ggctcagcct ctaggttgct 240
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gtcctcgagt ttagcccagc ttggcaacac caatagactc cctggaacca gcgccttgct 360
ccctgttgcc gcgagctcca gctcggattc agcccagctc acccctacct atgtcgcgcg 420
ggtttctcta atccccgcgt tgctc 444

<210> 2550

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E11

<400> 2550

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acgtgctttg acaaaccctg cagtgttcta ccaacaaccc atcattggtg gtgccctctt 120
ttagattgct tatgagttat agttcaataa tgaagttttt tggatgatgt ttgtggcgtc 180
ccaaaactaa gaaagtacat ttctagaaca aaaaggccta gcgacatggc atcttacctt 240
tatcaaactt gttcatccaa caatgatcaa tcctattaca gaagttacct ttggtgcatt 300
tcttggccca caacatcatg tcacatcacc taccacaact tgcgctaaca aaccttgctg 360
cctactctaa gaaacagcag ttgcttccat tcaaccagct atctgcattg aactctgctt 420
cttatttt 427

<210> 2551

<211> 326

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-E2

<400> 2551

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aaggacagca tgggtgaggtg cagcgtgctc aatgatgctc tcaagtccat gtacaatgct 120
gaaaagatag ggaaacgtca agtcatgatc aagccgtcat tcaaagtgat catcaagtcc 180
ctgacggtca tgcaacgcca tgggttacatt ggccagttcc agtacgtgga ttaccacaga 240
gctgggaaga tcgtggtgga gctgaatgga agactgaata aatgtggtgt tattagccca 300
cgttttgatg tangtggtta agagat 326

<210> 2552

<211> 213

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E3

<400> 2552

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gggcaagaag aaaatagaga gctacgagaa gaaaatacag ctacaaacag tcgtatgagc 120
 cgtatggaac aggagtggga agaactaaag aacagattaa gttgtagtta gacatacagt 180
 tctagtatac catcatcgag ttcagggcag cat 213

<210> 2553
 <211> 434
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E5

<400> 2553

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 agcttccctt cttcccccat acctctcacc agcgggtgtct tcaatgtgtg aaaccccaat 180
 tgttcaacct tacaggatcc aacaggcaat cgcaacaggc atcttaccat tatcaccctt 240
 gttcctccaa caaccgtcag ccctattaca gcagttacct ttgggtccatt tgggtggcaca 300
 aaacatcagg gcacaacaac tacaacaact tgtgctagca aaccttgctg catactctca 360
 acaacatcag tttcttccat tcaaccaact ggctgcattg aactctgctg cttatttgca 420
 acaacaatta ccat 434

<210> 2554
 <211> 377
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E6

<400> 2554

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 ggccgtggac gagggcgagg agagcctgca cgcgctcaac tgggtgcctcg ccaacgtcgt 180
 ctccccggca ggaggcgaca cgctggtgct agtacacgt cgcgcgccgc gcccggtcta 240
 cgccgccatg gacagtgcaa ggtacatgat gaccttgac gtgctggcga gcgttgagag 300
 gcacgccaac gcggtctcgg cggcagcagt tgacaaggcc aagcgcgtct gcgcttacta 360

cctgcacgta aaggcgg

377

<210> 2555
<211> 176
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E7

<400> 2555

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aacatatgtt tactccgtac gctgcttgct atttgtacat gcgtcgataa cgctacaatc 120
agctctcaac ggtcatatgc tactatcgct aaccttcttc atccatacat ttgatac 176

<210> 2556
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E8

<400> 2556

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gccaaagattt ttgccctcct tgccttcctt gctctttcag caagcgctgc tacctcgact 120
tttattccac aatgctcaca acaatacctc tctccggtga cagccgcggg atttcaatac 180
ccaactatac aatcctacat ggtacaagag gccatccaag caagcatctt acggtcatta 240
gcattaaccc tccaacaacc atatgctcta ttgcaacagc catccttagt gcatctgtat 300
ctccaaagaa tcgcggcaca acaactacaa caacagttgc taccaacaat caatcaagta 360
gttgcagcga accttgctgc ttacctccag caacaacagt ttcttccatt caatcaacta 420
gctggggtga accctgctat 440

<210> 2557
<211> 444
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-E9

<400> 2557

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tgettattgct ccttgggtctt tctgcaagtg ctgctacggc gaccattttc ccacaatgct 120
cacaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat 180
gtgaaaaccc aattcttcaa ccctatagga tccaacaggc aatcgcagct ggcattcttac 240
ctttatcacc cttgttctc caacaatcat cagccctatt acagcagtta ctttgggtgc 300
atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
ctgcctactc tcagcaacaa cagtttcttc cattcaacca actagctgca ttgaactctg 420
cttcttattt gcaacaacaa caac 444

<210> 2558

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F1

<400> 2558

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ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc ctatagcttc 120
ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc caattcttca 180
accctacagg atccaacagg caatcgcagc tggcatctta cttttatcac ctttgttctc 240
ccaacaatca tcagccctat tacaacagtt acctttgggtg catttattgg cacaaaacat 300
caaggcacia caactacaac aacttgtgct agcaaaccct gctgcctact ctgagcaaca 360
gcagtttctt ccattcaacc aactaggttc attgaactct gcttcttatt tgcaacaaca 420
acaactacca ttcag 435

<210> 2559

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F10

<400> 2559

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agatgcttgc attgttcgct ctccctagctc tttgtgcaag cgccactagt gcgacccata 120
 ttccagggca cttgccacca gtcattgcat tgggtaccat gaacccatgc atgcagtact 180
 gcatgatgca acaggggctt gccagcttga tggcgtgtcc gtccctgatg ctgcagcaac 240
 tgttggcctt accgcttcag acgatgccag tgatgatgcc acagatgatg acgcctaaca 300
 tgatgtcacc attgatgatg ccgagcatga tgtcaccaat ggtcttgccg agcatgatgt 360
 cgcaaattgat gatgccacaa tgtcactgcg acgccgtctc gcagattatg ctgcaacagc 420
 agttaccatt catgttc 437

<210> 2560
 <211> 438
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F11

<400> 2560

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 tcgtaggttc tttgtgggag tccaagacca acatgggctc tgtgcttctg gaagctggac 120
 ttgccaagct gagttcattt ggcttggata ggacctcaga tgcttatatc ctaacaagag 180
 ctgaacagtc tgcgaagcaa cagaagatta agatatggga gaactatgtc gagggtgaaa 240
 atgcttccaa tggatccaca cctgaatcta aacaaaagca aattctcaag gttgttgtca 300
 cggaagttct tgggtggggg aagttttatg ttcagacaat gggtgaccag aggggtggctt 360
 caattcaaca gcagcttgca tctttgaaac ttaaagatgc gccggtcatt ggtgctttta 420
 atcctgtgaa gggagaga 438

<210> 2561
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F12

<400> 2561

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 gggcaacttg atgcttgccc agccatatat agatggagcc cataaaccgg ccttgccatt 120

gcatccacg ccgtggacac caagcgtgca agcgttgcca tgggggtgag tgcataaggg 180
 ttcgaccgat tgggggaatt cgtggcggtc gaatctctgc tggcgctaca agcttattgg 240
 gtgtgcgcct gatcttatcc acactctttg cattcatcgt acgctagcgt acgcatagta 300
 cagcatctag cctggatgct actctgcgcc atctttcgcc tcggagcttg acattggcta 360
 tacgccgacc cttgagcggc ttgttcgcaa cgtgtgggtg acgttcatga cttcatacgg 420
 cggatattgt g 431

<210> 2562

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-F2

<400> 2562

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 gaccaaggac gacgcgccct gcaacggctc ggacgcggcg gcggcgccct ccgagcggca 120
 cggccacgac gggacgaggc tgtgcacggt ggaccagggtg gagcagctca agtcggcgat 180
 ccgcgtcctg ccgatctggt cctccacat cttcctcgcc cttgccatga accagagctt 240
 cgccgttaag caggccgatg ctatggaccg gcgcgtcggc gcggcggggt tccgcgttcc 300
 cagcggctcc ttggccgtct tcaacatggc caccatgtcg ctgtggtcgg cctgctacga 360
 caggtgggtc gcgcgggcac tgcagcggta cacgggcaac ccgcacgggc tcaccatgaa 420
 gcagcgca 428

<210> 2563

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-D8

<400> 2563

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 cgggggttcgg ttctgtgggt gagcggatcg agatggcggc gtcggatggt gagtaccgct 120
 gcttcgtcgg cggcctcgcc tgggccacgg acgaccactc cctccacaac gccttcagca 180

cctacggcga ggtcctcgag tccaagatca tcctcgatcg ggagacgcag aggtcccgcg 240
gcttcgggctt cgtcaccttc tccacggagg aggcgatgcg gaacgccatc gagggcatga 300
acggcaagga gctggacggc cgcaacatca ccgtaacga ggcccagtcg cgcgggcgcc 360
gtggaggcgg cggcgggcgg gggtaggtg gtggccgtgg aggcggcgcc tacnccggtg 420
gcggggcgc 428

<210> 2564
<211> 440
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C3

<400> 2564

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tgctccttgg tctttctgca agtgtgcta ccgcaaccat tttcccacaa tgctcacaag 120
ctcctatagc ttcctttctt ccccatacc tctcaccagc ggtgtcttca gtatgtgaaa 180
acccaattct tcaaccctac aggatccaac aggcaatcg agcaggcatc ttacctttat 240
cacccttggt cctccaacaa cgtcagccc tattacagca gttacctttg gtgcatttgt 300
tggcacaaaa catcaaggca caacaactac aacaacttgt gctaagaaac cttgctgcct 360
actctcagca acagcagttt cttccattca accaactggc tgcattgaac tctgctgctt 420
atttgcaaca acaactacca 440

<210> 2565
<211> 441
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C4

<400> 2565

gagaccaaca agcaacatag aaagtgtaat acagtagcaa aaatagagca acaatggcgg 60
ccaagatatt ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca 120
tttttcctca atactcacia gctcctatag ctgcccttct tccccatac cttccatcaa 180
tgaccgcttt agtatgtgaa aaccagccc ttcaacccta caggatccag caagcaatcg 240

caacaagcaa cttaccttta tcacacctgt tctttcaaca atcgccagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcagggcag aacagttgca gcaactcgtg ctaccagtga 360
 tcagccaagt agctctggca aacctttccc cctactctca gcaacaacaa tttcttccat 420
 tcaaccaact gtctatactg a 441

<210> 2566

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C6

<400> 2566

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 tcttcggtat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagct 120
 ggcattcttac ctttatcacc ctgtttcctc caacaatcat cagccctatt acaacagtta 180
 cctttggtgc atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta 240
 gcaaaccttg ctgcctactc tcagcaacag cagtttcttc cattcaacca actaggttca 300
 ttgaactctg cttcttattt gcaacaacaa caactaccat tcagccagct acctgctgcc 360
 tccccccagc aatttcttcc attcaaccaa ctagcagcat tgaactctcc tgcttattta 420
 cagcagcaac aactact 437

<210> 2567

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C7

<400> 2567

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 caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
 tcagtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc 240
 atcttacctt tatcaccctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300

ttggtgcatt tgttggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagga 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420
aactctgctg cttatt 436

<210> 2568

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C8

<400> 2568

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cctccttgcg cttcttgccc tttttgtgag tgcaacaaat gcgttcatta ttccacaatg 120
ctcacttgct ccgagtgcga ttattccaca gttcctccct ccagttactt caatgggctt 180
cgaacaccca gctgtgcaag cctataggct acaacaagcg cttgcggcga gcgtcttaga 240
acaaccaatt gcccaattac aacaacaatc cttggcacat ctaaccatac aaaccatcgc 300
aacgcagcag caacaagcac tgagccacct agccgtggtg aacctatcg cctacttgca 360
acaacagctg cttgcatcca acccacttgc tttggcaaac gtagctgcat accaacaaca 420
acaacagttg caacagtt 438

<210> 2569

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C9

<400> 2569

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ctgcttggtc tttctgcaag tgctgctacg gcgagcattt tcccgcaatg ctcaagct 120
cctatagctt cccttcttcc ccctacctc tcaccagcga tgtcttcagt atgtgaaaat 180
ccaattcttc taccctacag gatccaacag gcaatcgag caggcatctt acctttatca 240
cccttggtcc tccaacaatc atcagcccta ttacagcagt tacctttggt gcatttattg 300
gcacaaaaca tcagggcaca acaactacaa caactcgtgc tagcaaacct tgctgectac 360

tctcagcaac agcagttacc tttggtgcat ttgttggcac aaaacatcag ggcacaacaa 420
 ctacaacaac tcgtgctagc 440

<210> 2570

<211> 249

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D1

<400> 2570

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 ttccttatgc acacccctct atctgcaaac acttctacca aaaccatata ccacataac 120
 tcacaaactt ctatacctac ctttcttccc ccatacctct cactacctca aaacccact 180
 atattaaaac ccaattcttc aaccctacat tatccaacac tcaataccat taaacatctt 240
 aactttatc 249

<210> 2571

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D10

<400> 2571

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 gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
 tcctatagct tcccttcttc ccccgctacct ctaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 420
 tttgcaacaa caacaactac cattca 446

<210> 2572

<211> 379

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-036-Q1-K1-D11
 <400> 2572

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 ggggcaacaa tctcttccat ttaaccaatt ggccgcactg aaccctctg cttatttcca 120
 gcaacacata ctactaccat ttggccagct agctacaaca agccccactt cttttttgaa 180
 acaacaacaa ttgcttccgt tctaccagca gtttagcggct aaccctcgat ccctcttaca 240
 acttctacac cttctgcctt ttgtccaact cgctcttaca aaccattaa ctttctacca 300
 acaacacatc attggccatg ccatctctta gaatgcctat tacttgtaat tcaattatga 360
 aaccctactg cttacgtat 379

<210> 2573
 <211> 426
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-036-Q1-K1-D12
 <400> 2573

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 gctgtgagat ctaagctagt agagcttgga tatgaaatcg gtgacaagga atttgaggac 120
 ttcttttaaac gctacaaaga ggttgacagag aagaaaaagc gcgtaactga tgaagactta 180
 gaagcgttat tgtcggatga gatattccag cctaagggtta tttggctcct tgctgatgta 240
 caggcaacat gtggtacact tgctttatct acggcaacag tgaaattgat agcaccagat 300
 ggagaggaga aaatagcatg ttcagtcgga acagggtccag tcgatgcagc ttacaaggct 360
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 gaaggc 426

<210> 2574
 <211> 376
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-036-Q1-K1-D2

<400> 2574

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gcgcttcttg cccttttagt gagcgcaaca aatgcgttca ttattccaca gtgctcactt 120
gctcctagtg ccagtattcc acagttcctc ccaccagtta cttcaatggg cttcgaacat 180
ccagccgtgc aagcctacag gctacaacta gcgcttgccg cgagcgcctt acaacaacca 240
attgcccaat tgcaacaaca atccttggca catctaacc tacaacccat tgcaacgcaa 300
caacaacaac aacagtttct gccatcactg agccacctag ccgtggtgaa ccctgtcacc 360
tacttgcaac agcagc 376

<210> 2575

<211> 432

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-D3

<400> 2575

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tcngcagccc gttcctgggc cagtgcgtcg agttcctgag gcaccagtgc agcccggcgg 120
cgacgcccta cggctcgcca cagtgccagg cgctgcagca gcagtgtgc caccagatca 180
ggcaggtgga gccgctgcac cgggtaccagg cgacatacgg tgtggctctg cagtccttcc 240
tgcagcagca gccgcagggc gagctcgcg cgctgatggc ggcccaggta gcgcagcagc 300
tgacggcgat gtgcggtctg cagctgcagc agccaagtcc ctgcccttgc aacgcagctg 360
ccggcggtgt ctactactga ggaaactatg tactgtagta ataatgtaat ggagccgctg 420
actagctacc ta 432

<210> 2576

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D4

<400> 2576

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 taacaacaat ggctaccaag atattatccc tctttgcgct tcttgccctt tttgtgagcg 120
 caacaaatgc gttcattatt ccacaatgct cacttgctcc tagtgccatt attccacagt 180
 tcctccctcc agttacttca atgggcttcg aacacccagc tgtgcaagcc tacaggctac 240
 aacaagcgct tgcggcgagc gtcttacaac aaccaattgc ccaattacaa caacaatcct 300
 tggcacatct aaccatacaa accatcgcaa cgcaacagca acaacaattt ctaccagcac 360
 tgagccaact agctgtggtg aacctgtcg cctacttgca acagcagttg cttgca 416

<210> 2577

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D5

<400> 2577

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 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcattctac 240
 ctttatcacc cttgttctc caacaatcat cagccctatt acatcagtta cctttggtgc 300
 atttattggc aaaaaacatc aaggcacaac aactacaaca acttgtgcta gcaaaccctg 360
 ctgctactc tcagcaacag cagtttcttc cattcaacca actagctgca ttgaactctg 420
 cttcttattt gcaac 435

<210> 2578

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-D7

<400> 2578

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ccatgtgcaa caacacgaac agagccatga gcaacaccaa ggacagagcc atgagcaaca 180
 acatcaacaa caattccagg gtcatgacaa gcagcaacaa ccacaacagc ctcagcaata 240
 tcagcagggc caggaaaaat cacaacagca acaatgtcat tgccaggagc agcaacagac 300
 tacaaggtgc agctataact actatagcag tagctcaaat ctaaaaaatt gtcatgaatt 360
 cctaaggcag caatgcagcc ctttggtaat gccttttctc caatcacgtt tgatacaacc 420

<210> 2579

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C2

<400> 2579

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 gatattttcc atccttatgc tccttgcctt ttctgcatgt gttgctaacg cgaccatttt 120
 tcctcaatac tcacaagctc ctatagctgc ccttcttccc ccataccttc catcaatgac 180
 cgcttttagta tgtgaaaacc cagcccttca accctacagg atccagcaag caatcgcaac 240
 aagcaactta cttttatcac acctgttctt tcaacaatcg ccagccctat ctttggtgca 300
 gtcattggta caaaccatca aggcagaaca gttgcagcaa ctctgtgtac cagtgatcag 360
 ccaagtagct ctggcaaacc tttcccctta ctctcagcaa caacaatttc ttccattcaa 420
 ccaactgtct atactg 436

<210> 2580

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A8

<400> 2580

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 gcctccttat gtccttgggt ctttctgcaa gtgtgtgtac ggcgaccatt ttcccgcaat 120
 gctcgcaagc tcctatagct tccttcttcc ccccgtagct ctcaccagcg gtgtcttcgg 180
 tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240

tacctttatc acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg 300
 tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
 ttgctgccta ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact 420
 ctgcttctta attgc 435

<210> 2581
 <211> 400
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-036-Q1-K1-B1

<400> 2581

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 cccaagaaga ataagccgcc gacgccgccg ctggttgccaa acggcagcgg cagggaccgc 120
 ggcgtgtcca tggagctgag cagctcgctg tcggtggcgg cgaggaagga ggcggtggtg 180
 cgggtggtga tgcgcgccgg ngtggtggaa gtgtaccgcg gcgtggtgct ggcgtgcacc 240
 gtcacccgga accaccgcc ggggctgtgc ctggcgacc cggacgtgtt ccgcaaccgc 300
 cacggcgccg tcgtccgcc gctcgagccg ctcttccccg gccagaagtt cctgctgctc 360
 cccgagacca ccgtggtccg gctcaagcag aggatccccg 400

<210> 2582
 <211> 171
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B10

<400> 2582

aacaattgct gccatacaac cagttctctt tgatgaacc tgccttgac caaccatcg 60
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 gacatgtgtt tcttagaaat aatcaatata ttgattgaga tttatctcga t 171

<210> 2583
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B11

<400> 2583

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tggagcaact gaatgctatt cttagacagg cttctaaaac caaggaaaag gaagatctca 120
ggaagataga taactggcaa tatattagtt gtgtcaacct atgggttcgg tttctgtgtt 180
gtcactataa ggattacaat ctccatccct tattttctca agttcttcaa gtaataagag 240
gagtggctca cttattccca ggcacaaggc acttaccgtt gagactgaag cttgtgcaga 300
tgctgaacga gctttccact tgcagtcaga tgttctatcc aattccatcg ttgctctttg 360
actgcctaga attaagagaa gtttctcaga aagaacaaac acaaagaaca aagatcaact 420
tttcgtc 427

<210> 2584

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B12

<400> 2584

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cagcggatgc ccgatgagtc caaggagaaa agtcaaactc aaaagccacc agcacagctc 120
ttttccatca aaagagatga agaacagtca aatgggtgaga gtgcaaagcc tcgaaaagtt 180
ggaagcacgc catcatatgg tttcaccttc aagtgtgatg agagatctga aaaaagacga 240
gagttctatt cgaagcttga tgagaagatt catgcatgag agttagaaat aagcaatttg 300
caagccaagt caaaggaaac tgaagaagca gaactcagaa tgctgagaaa gagtctgaat 360
ttcaaggcaa caccaatgcc aagcttttat aatgaaccaa cccctgccaa ggttgaattg 420
aaaaagatcc cccaaccag agct 444

<210> 2585

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B2

<400> 2585

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gtctttctgc aagtgtgct acggcgacca ttttcccaca atgctcacia gctcctatag 120
cttcccttct tccccgtac ctctcaccaa cgggtgtcttc ggtatgtgaa aaccaattc 180
ttcaacccta caggatccaa caggcaatcg cagctggcat cttacctta tcacccttgt 240
tcctccaaca atcatcagcc ctattacagc agttacctt ggtgcattta ttggcaciaa 300
acatcagggc acaacaacta caacaacttg tgctagcaaa cttgtctgcc tactctcagc 360
aacagcagtt tttccattc aaccaactag ctgcattgaa ctctgcttct tatttgcaac 420
aacaacaact accattcag 439

<210> 2586

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B3

<400> 2586

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gcttatgtct cttgggtctt ctgcaagtgc tgctaccgca accattttcc cacaatgtct 120
acaagctcct atagcttctt ttcttcccc atacctctca ccagcgggtgt cttcagtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagcag gcattctacc 240
tttatcacc ttgttctctc aacaaccgtc agccctatta cagcagttac ctttggtgca 300
tttggttgga caaaacatca aggcacaaca actacaacia cttgtgctag gaaaccttgc 360
tgctactct cagcaacagc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
tgcttatttg caacaacaac tacc 444

<210> 2587

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B4

<400> 2587

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gagcgcaaca aatgcgttca ttattccaca gtgctcactt gctcctagtg ccagtattcc 120
acagttcctc ccaccagtta cttcaatggg cttcgaacat ccagccgtgc aagcctacag 180
gctacaacta gcgcttgcgg cgagcgcctt acaacaacca attgcccaat tgcaacaaca 240
atccttggca catctaacc tacaaccat tgcaacgcaa caacaacaac aacagtttct 300
gccatcactg agccacctag ccgtggtgaa cctgtgcacc tacttgcaac agcagctgct 360
tgcaccaac ccacttgctc tggcgaacgt agctgcatac cagcaacaac aacagctgca 420
acagtttatg ccagtgctc 439

<210> 2588

<211> 457

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B5

<400> 2588

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caagatatga gccctccttg cgcttcttgc ccttttagtg agcgcaacaa atgcgttcat 120
tattccacag tgctcacttg ctcttagtgc cattattcca cagttcctcc caccagttac 180
ttcaatgggc ttcgaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc 240
gagcgcctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct 300
aaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgagccacct 360
agccgtggtg aacctgtca cctacttgca acagcagctg cttgcatcca acccacttgc 420
tctggcgaac gtagctgcat accagcaaca acaacag 457

<210> 2589

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B8

<400> 2589

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gcatcaagat ggcaccattt gaggctctgt atggcaggcg gtgtatctct cctctatgct 120
 gggagacttt gggagagaga tccctgggtg gtcctgattg ggttcagcaa acttttgaaa 180
 aggttcggga aattcgtcag aatattttgg cagctcagag tcgtcagaag agttatgctg 240
 atgtgaggag gcgggatctg gaatttggtg ttggtgacca agtccttctc agggatatcac 300
 ccactaaggg agtgggttcgt ttccggtgtct ctgggaagct cagcccaggg tacattggac 360
 cgttcactat cttggccccg gtgggcagcc tagcttatcg cttgctactg ccggattcca 420
 tggcaggggt acaccc 436

<210> 2590

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-B9

<400> 2590

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 tggggctgct gatcggtgct gttgctcatc tgtctctcgc tgacagcgcc accttactc 120
 atacattccg cgcttgatc tgtcagccta ctccccatc tctatcaccg tcatcgcttc 180
 atctatccac aaaaccaca tcttccaccc tataggcttc aacaagcact cgcacctcgc 240
 aacatacctt tatcaacttt gattcaacaa tcaccagccc tatcttttga gcagtcattg 300
 gtacacatcc ctctatgcac atcatctgca acaacttggt ctacctgtga tcaaccacat 360
 atctctggct aaactttctt actacta 387

<210> 2591

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C1

<400> 2591

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 gcagccaaaa tattttgctt cttatgctc cttgggtctt ctgcaagtgc tgctaccgca 120
 accattttcc cacaatgctc acaagctcct atagcttcct ttcttcccc atacctctca 180

ccagcgggtgt cttcagtatg tgaaaaccca attcttcaac cctacaggat ccaacaggca 240
atcgagcag gcatcttacc tttatcacc ttgttctcc aacaaccgtc agccctatta 300
cagcagttac ctttgggtgca tttgttggca caaaacatca aggacaaca actacaaca 360
cttgtgctaa gaaaccttgc tgctactct cagcaacagc agtttcttcc atcaaccaac 420
tggtgcatt gaactctgct g 441

<210> 2592

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C10

<400> 2592

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ctggagccct ataggctcca acaagcaatc gcagcaagca acataccttt atcaccttg 120
ttgtttcaac aatcgccagc cctatctttg gtgcagtcatt tggtaaaac catcaggga 180
cagcagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc aaacctttct 240
ccctactctc agcaacaaca atttcttcca ttcaaccaac tgtctacact gaaccctgct 300
gcttatttgc agcaacaact attaccattc agccagctag ctactgcta ctctcagca 360
caacaacttc ttccatttaa ccaattggcc gcaactgaacc ccgctgctta tttgcagcag 420
caaatactac taccattt 438

<210> 2593

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C11

<400> 2593

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ccgagatact ttccctcctt atgtccttg ctctttctgc atgtgttgct aacgcgacaa 120
tttccctca atgtcaca gctcctatag ctcccttct tccccatac cttccatcaa 180
tgatagcttc agtatgtgaa aaccagctc ttcaacccta taggctccaa caagcaatcg 240

cagcaagcaa cataccttta tcacccttgt ttcaacaatc gccagcccta tctttggtgc 300
 agtcattggt acaaaccatc aaggcacagc agctgcagca actcgtgcta cctgtgatca 360
 accaagtagc tctggcaaac ctttctccct actatcagca acaacaattt cttccattca 420
 accaactatc tacactgaac cctgct 446

<210> 2594

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-C12

<400> 2594

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 gttcgtgccc tatgagggcg acaccgtgtc cgggaacttc gtcgtcgtcg accacgacat 120
 cttctggagc tccgaccacc caggaatcga cctcacggta acgtcaccag gtggcaacac 180
 tgtgtacaca ttgaagggaa aatctggtga gaaatttgag tttaaagctc caagaggtgg 240
 catgtataag ttctgcttcc ataaccata tggagcacct gaaactgttt ctttctacat 300
 ccatgttggg cacataccca atgagcacia tctggcgaaa gatgagcact tggaccctat 360
 caatgttaaa atcgcgagc tgaaggaagc attagaatcc gtcaccgccg agcagaagta 420
 cctaatagca cgcgaagc 438

<210> 2595

<211> 102

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A6

<400> 2595

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 catcaattgt tacacttgta agacgttgcc agcgttatgc at 102

<210> 2596

<211> 245

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-F3

<400> 2596

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cagccatcct tagtgcattct gtatctccaa agaatcgagg cacaacaact acaacaacag 120
ttgctaccaa caatcaatca agtagttgca gcgaaccttg ctgcttacct ccagcaacaa 180
cagtttcttc cattcaatca actagctggg gtgaaccctg ctatctactt gcaggcacia 240
cagct 245

<210> 2597

<211> 243

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-F4

<400> 2597

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tcaatgatct aactccaaaa accatgaagc tgggtgcttg ggttcttgct ttcattgctt 120
tagtatcaag tggttcttggt acacagacag gcggctgcag ctgtggtcaa caacaaagcc 180
atgagcagca acatcatcca caacaacatc atccacaaaa acaacaacat caaccaccac 240
cac 243

<210> 2598

<211> 237

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-F5

<400> 2598

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ttcgacgaga gagacgaccg aacccggccg gaaggggagg agcgggagga ccgcctgcgc 120
cgtcggtgag ctgcaagtta ggctttcaaa gaatgtggag gagtgtgtgg actttgcgcc 180
agagggaggt aaggtggtgg tgagtgtctac tccaaaaggc cactccgatg gaagtca 237

<210> 2599
 <211> 237
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-F6

 <400> 2599

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 ggcatgttcc tgtggcacgc ccgcggcgac acggggcggcg cggaggacat gttcaccggc 120
 gccattgacg cggagcccga gagcagccac caccggagca gctacgcgtg gttcctatgg 180
 atgaccggcg gcgtcgagac ctgcctcatg gacaccggca ggcagagcga cggcaac 237

<210> 2600
 <211> 237
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-F7

 <400> 2600

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 caacaggcaa tcgcagcagg catcttacct ttatcacctt tggtcctcca acaaccgtca 120
 gccctattac agcagttacc ttgtgtgcat ttgttggcac aaaacatcaa ggcacaacaa 180
 ctacaacaac ttgtgctagg aaaccttgcg gctactctc agcaacagca gtttctt 237

<210> 2601
 <211> 150
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-F8

 <400> 2601

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 taacatcaat tactttcaca aaacatcaaa ccacaacaac tacaacaact tattctacaa 120
 caaccttact tactactata acaacaccac 150

<210> 2602
 <211> 245

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G1

<400> 2602

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ccattgtccc cgcattgctg caagctccta tagctttcct tcttccaccg tacctctcac 120
cagcgggtgc ttcgggtatgt gaaaacccaa ttcttcaacc ctacaagatc caacaggcaa 180
tcacagctgg catcttacct ttatcacctt tgttctcca acaatcatca gccctattac 240
atcag 245

<210> 2603
<211> 299
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G11

<400> 2603

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atcgtttgtg ctttgcaagt caatcaaact gagccagtga agaagtttga gccagatct 180
aaactgtggt ctgatacttt gagccgaggt ctagtcaatc tggacatttc tggacctaac 240
gogaattctc atgctgatat tggagttgac tctgattcaa tcaatcgac ggagaaaag 299

<210> 2604
<211> 260
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G2

<400> 2604

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attatctaac tccaaggacc atgaaactgg tgcttggggg tcttgctttc aatgctttaa 120
tatcaaattg ttcttgtaca cagacaggcg gctgcagctg tggtaacaa caaagccatg 180
agcagcaaca tcatccacaa caacatcatc cacaaaaa acaacatcaa ccaccaccac 240

aacatcacca gcagcagcaa

260

<210> 2605

<211> 245

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G3

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cgtcctgctc tccgtgctcg cggctgccag cgccagcgcc gggacctcct gcgtgccggg 180

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cggca 245

<210> 2606

<211> 243

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-017-Q1-K1-G4

<400> 2606

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tccctgctta tgctccttgc tctntctaca tgtgttgcta acgcgacaat ttttcctcaa 120

tgctcacaag ctcttatagc ttcccttctt tccccatacc ttccatcaat tatagcttca 180

atatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240

ata 243

<210> 2607

<211> 239

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G5

<400> 2607

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aacaaccgct tctctogcaa agaagtatgg agcagatatt actgtagttg ttattgatga 120
taaaccaaag gagtctgtcc cagagcatga tactcaaatg tcaagcatta gatggcatct 180
ctcagaaggc ggattttcgg agtttagatt gatggagcgt cttggggaag ggcagaaac 239

<210> 2608
<211> 253
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G6

<400> 2608

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc ccggtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca ccc 253

<210> 2609
<211> 240
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G7

<400> 2609

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gccacccccc tggccgcacc ggccgagggc gcgggcggcg acgtggccgc cgggagaacc 120
ggcgcggtgg ccgcctgct gcggcggtgg cggaccagg acctgctgga ccggtcgggg 180
tccgcgctgc gcgcgcggc gtgggcgttc tccctgctgg cgttcctcgt catggcctgc 240

<210> 2610
<211> 231
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G8

<400> 2610

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tggcatgctt ttggagatgg atcagactga ggttcttcac ctgctgtagt cgccagatgc 180

tctgaaagcc aaggttgcgt aagccatgga tgcctccgc tctgccagc a 231

<210> 2611

<211> 251

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-G9

<400> 2611

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agacctctgc aacaattcct gcaacagacc gtaccagctt ttactcagaa tgtaaacactc 120

aaaccctact aactacttgc aacagctgat atcattcatt caatagactg tgacgaacta 180

tactgcgtac ctacatcaac tatactactc atacatgtga ctacctctgt ctatctctct 240

tttcactttc t 251

<210> 2612

<211> 246

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H1

<400> 2612

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gcttacttgc aacagcagtt gcttgcattc aaccctcttg ctctggcaaa catagttgca 120

taccaacaac aacaacaatt gcaacagttt ctaccagcgc tcagtcaact agccatgggt 180

aaccctgccg cctacctaca acagcaacaa ctgatttcat ctagccctct cgctgtgggt 240

aatgca 246

<210> 2613

<211> 289

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H10

<400> 2613

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gctccagcat ctctaaccac ctatcaggat ctaccaagtt gccacatata ctttgaccca 120
ccttcactct atccatgcta caatactccc aacatatcta ctatccccag actatctgac 180
tgaccttcat agatatggta actctcaaga ctatgaactt taacaagaca cttgcaaaga 240
atctttccaa tacataccat cctatcttgc catcagacgc catcatcac 289

<210> 2614

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H11

<400> 2614

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ttcttcagac gaaaaggaat aaacaatcta aactccgttc aacatccctt tcgttgatg 120
gcctcctaga ttatactgcc aaggatatag aggagtctgt atttgacgtc tgtgccttgc 180
aattacttta tgtagtata tatcaaaagg gactactact tgtgcacctt tatatgttct 240
gctgctacct agttggcaaa cttgagcata ccacaccacg taactgaagt atcttttcat 300
tgccatctgt gtttgagagc tcatgcccac ggacactgat ctgatgttct attcctttgt 360
caactttctt ttgcttgctg agtcattcag tgaaatgctt caacacagaa t 411

<210> 2615

<211> 256

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H2

<400> 2615

cctgtctccc tccctcccc accccgcgag accgccggcg aatttggtgc agtgactga 60
agccaacagc tgcaggacag gaggaggagg aggagctgtt tcaacaatta tccccgcgc 120

gcccaggcca gccccgcccc cgcccgccca ctctcccgag gattccaggt tctcaacaca 180
acagacaaca ccgctcaccg catatatata tatatagatg ggttccgagg ggccttctcc 240
cgtcaccgtc cacgtc 256

<210> 2616
<211> 245
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-H3

<400> 2616

gcagcccttt ggtaatgect tttctccaat cacgtttgat acaaccaagt agctgccagg 60
tattgcagca acaatgttgt catgatctta ggcagattga gccacaatac attcaccaag 120
caatctacaa catggttcaa tccataatcc aggaggagca acaacaacaa ccatgtgagt 180
tatgtggatc tcaacaagct actcaaagtg cgggtggcaat cttgacagca gcacaatacc 240
tacca 245

<210> 2617
<211> 379
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-017-Q1-K1-D12

<400> 2617

cactcccaca ccaaccaacc aacctcctct gcctgccgct tctcctgctg cgggcggtca 60
cggctgcaag tactagagga ggacatccgc ttccattact gcgcctgcgg aggatcggag 120
gaaccagtag cggaggcttc gattttcggc gggcgcaata aatttcccgc atggctcgga 180
gggcccgcgtc ctgcctcgtc tcccgtgcc tccctggcgag ggcccctgcc ggcgcgccgn 240
ccgctgcccc ctctgcgctg cgcangacag tgccctgcaga tgggatgcac aggcttgtgg 300
ccagtgtcct tcagaggttc agcactgcag cagcagtaga ggagcccata acgccgtcag 360
tccatgtgaa ctacacaaa 379

<210> 2618
<211> 246

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-D2

 <400> 2618

 aaagaagatg gtactttatgc acctaaggtg aaaaggaaga agcaagagga gaaagctgct 60
 gagaaaaaac gacgagcaga agaggcacag caagctggcc ccaatgctgc tgctgctcaa 120
 agcaatggaa ctggctatca agcgtctcgt ctgggcaagg cttcgcagga gccacctgct 180
 cctccgaaca acatcctctt catccagaac ttgccagacc agaccacgag catgatgctc 240
 cagatc 246

<210> 2619
 <211> 243
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-017-Q1-K1-D3

 <400> 2619

 attgagacca gcaagcaaca tagaaagttt aatcttttag caacaataga gcaacaatgt 60
 cnaccgagat attttccctg cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
 caattttccc tcaatgctca caagctccta tagctttcct tcttccccca taccttccat 180
 caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataagctt caacaagcaa 240
 tct 243

<210> 2620
 <211> 246
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-D4

 <400> 2620

 attgagacca actagcaaca tagaaagcac aatagtgtac caacaatggc agccaaaata 60
 ttttgcttcc ttatgctcct tggcttttct gcaagtgtg ctaccgcaac cattttccca 120
 caatgctcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180

tcagtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc 240
atctta 246

<210> 2621
<211> 238
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D5

<400> 2621

attgagacca actagcaaca tagaaagtac aatagtgtac caacaatggc ggccaaaata 60
ttttgcctcc ttatgtcctt tggctcttct gcaagtgtg ctacggcgac cattttcccg 120
caatgtctgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctg 238

<210> 2622
<211> 237
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D6

<400> 2622

gtggggaggg aaagggaaacg ggagcgggag gggaatccaa ttgcgatggc ctccgactcg 60
ggcgatttcg gtggggagaa caagtcgttg gaaacggcga ggcggctgct ggaggagacc 120
ttcacgagtg aggcagaggc ggaggcgcta ccgagcttgc cctcgggggtt ctacgacgcc 180
ttcgtcctga ggggaatccg cgtcgtccag gccctccagc ccggcacact cctctgc 237

<210> 2623
<211> 236
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D7

<400> 2623

gcgtaacctg ctgggtccg acgccagcct cgccgtccac gcgggggaga ggctgggaag 60
aaggatagcc acggatgcta tcaccagcc ggtagtgaac acgtcggcct actggttcaa 120

caactcgcaa gagctaatcg actttaagga ggggagggcat gctagcttcg agtatgggag 180
gtatgggaac cggaccacgg aggcattaga gaagaagatg agcgactgg agaaag 236

<210> 2624
<211> 239
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D8

<400> 2624

gcacaatagt gtaccaacaa tggcagccaa aatattttgc ttccttatgc tccttgggtct 60
ttctgcaagt gttgctaccg caaccatttt cccacaatgc tcacaagctc ctatagcttc 120
ccttcttccc ccatacctct caccagcggg gtcttcaatg tgtgaaaacc caattgttca 180
accctacagg atccaacagg caatcgcaac aggcattcta ccattatcac ccttggtcc 239

<210> 2625
<211> 379
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-017-Q1-K1-D9

<400> 2625

gcgcgggacgc gtgggcagcg cgctcccacc ggccccggcg tccgacgaca gggcggggag 60
ccccgcgggcg gcgcggggcga gcaagctggc gcgcgccgcg ccgcggcgga gcaggtcgga 120
gaagatggcg gcggggccgc ggctgctgca gggtcggcgc gcggcggtccc cgccggcggc 180
ccccgagctg cggcggacgg agtcggagaa cgggcggcgg cggcgggtcgt ccgtgtcggc 240
gcgcgcgtgc cgctggggcg cggacgacgc cgacgagttc cggcgcacgg tggaggcggt 300
catcgacaag cacaagcggg tccaccgnca ggagtccatg acgctggccg tcgtcgcggg 360
gtccgggacc gggtcgggc 379

<210> 2626
<211> 421
<212> DNA
<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-017-Q1-K1-E10

<400> 2626

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cgccgttggc ggcgccaacc acagccacgc caccaaggac ctcaaggacg ccatcgcggc 120
ggggaacttc cccgagtgga cgctctacat ccagaccatg gaccccgaga tggaagaccg 180
cctcgacgac ctggaccgcg tggacgtgac caagacgtgg cccgaggacg cgttcccgtc 240
gcagcccgtg ggccgcctgg tgctcaaccg caacatcgac aacttcttcg cggagaacga 300
gcagctggcc ttctgcccgg gcctcatcgt ccccgggatc tactactccg acgacaagct 360
gctgcagacc aggatcttct nctaattcga cagcgacgc caccgnctcg gcccgaatta 420
c 421

<210> 2627

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E12

<400> 2627

ccagacgtct ccaatcggag ctcccatcgt ctccggagaag aggagcagca cggcacggcg 60
gctgtggcga ggaaggctcc tgcctgtcc catcccaacc cagcagccgt ccaaggagga 120
ggagatccaa tcggcgtgca ggcgtccacc gtccatccat cgatccaatt ccaatctgca 180
ggcctctgcg tcgcggttg ttcgtggagg agaggttgct gtggaaccg ccgccagtta 240
gccatgtcgt cctccgtgct gagggctgcg gccgacaggg ctattcgag gcaggccctc 300
acgtgacgg acgccgggc gtccaggatc cggcagctcc tcagcctcag gcagcggcca 360
ttcctgcggc tcggcgtcaa agcgcgtggt tgcaacggcc tctcgtacac gct 413

<210> 2628

<211> 246

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E2

<400> 2628

cccacgcgtc cgcaactagc aacatagaaa gcacaatagt gtaccaacaa tggcagccaa 60
aatattttgc ttcccttatgc tccttgggtct ttctgcaagt gttgctaccg caaccatttt 120
cccacaatgc tcacaagctc ctatagcttc ccttcttccc ccatacctct caccagcggt 180
gtcttcaatg tgtgaaaccc caattgttca accctacagg atccaacagg caatcgcaac 240
aggcat 246

<210> 2629
<211> 242
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E3

<400> 2629

gagaccaaca agcaacatag aaagtggaat ccagtagcaa caatagagca acaatggcga 60
ccaagatatt ttccctcctt atgctccttg ctctttctac atgtgttgct aacgcgacaa 120
ttttccctca atgctcacia gctcctatag cttcccttct tccccatcac cttccatcaa 180
ttatagcttc aatatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg 240
ca 242

<210> 2630
<211> 245
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E4

<400> 2630

gaccaactag caacatataa agcacaatat tgtaccaaca atggcagcca aaatattggg 60
cttccttatg ctcttgggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cctttcttcc ccatacctc tcaccagcgg tgtctacagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt 240
acctt 245

<210> 2631
<211> 242
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E5

<400> 2631

ctatgaatga acacaagaaa cttgtaactg gtactcctat catggatcaa cgtatcctga 60

ttgatcagct gatgggggggt gtccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180

aaaaaaaaaa aaaaaaaaaa aaaaaaaagg ggcgccccct taaaagaacc caacttaacc 240

ac 242

<210> 2632

<211> 238

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E6

<400> 2632

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cctccctcca gttacttcaa tggggttcga acaccagct gtgcaagcct acaggctaca 120

acaagcgctt gcggcgagcg tcttacaaca accaattgcc caattacaac aacaatcctt 180

ggcacatcta accatacaaa ccatcgcaac gcaacagcaa caacaatttc taccagca 238

<210> 2633

<211> 252

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-E7

<400> 2633

attgagacca gcaagcaaca tagaaagtag aatccattag caacaataga gcaacaatgg 60

cgaccaagat attttccttc cttatgctcc ttgctctttc tacatgtggt gctaacgcga 120

caattttccc tcaatgctca caagctccta tagcttcctt tcttccccca taccttccat 180

caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240

tcgcagcaag ca 252

<210> 2634
 <211> 250
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-E8

 <400> 2634

 gaacacgtac cagcatcagc agtaaaaacc ttttgcatta ctacagcaac aatgacgaac 60
 aggatatatg caatcattaa ggggcttget atttctacat ctgtcgctaa cgcgacactc 120
 ttacctcaat gctcacaagc tcctatagct accctacttc acccatacct tccatcaatt 180
 atagcttcag tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
 gcaagcaaca 250

<210> 2635
 <211> 127
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-E9

 <400> 2635

 gaggaatccc actacagtgc ctcctcgtg ggctcgtgga ctagcatggt gccggggccg 60
 tgggggacgg caaggacggt acgcaaccgt acgcaggcac tcaccggtga gcggcgaggc 120
 gactgac 127

<210> 2636
 <211> 381
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-F10

 <400> 2636

 gccacttggg tccggtgctc agcggaaacag ctagctatag cctgtagcta gcagctagct 60
 tcagtcacag gccggacggt cggctcacac acagctagcc gccgccgctg ctagcttagc 120
 caccagtagt ccgatctgat ctacaggcag ggggccagca ggggcagcta gctagctagc 180
 cgcgcgccgg cgccatgatg aacctgaacc tgaagcagcc gctcgtgctg cccgcgcacc 240

acagcaatgt cgctggctcg cgctgtcgt cgctgtcgcc ctgggcagcc gccgccagca 300
ggaggaccgg cggcggcggtg tcctcccggt ccggtcccg gcggcacgtg cggctgccga 360
ggatcagctg cagcgccacc g 381

<210> 2637
<211> 258
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-F11

<400> 2637

attgagacca actagcaaca tagaatgtac aattttgtac caacaatggc agccaaagta 60
tggtgcctcc ttatgtcctt tgggtcttct gcaagtgtg ctaccgcgac catttttcca 120
caatgcttac aagctcctat agcttcctt cttccctgt acctcttacc agctgtgtct 180
tccttatgtg aaaacccaat tcttcaactc tataggatcc tacaggcaat cgcagctggc 240
atcttacctt tatcacc 258

<210> 2638
<211> 325
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D11

<400> 2638

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cgccgtcaac gcggtcgccg ccgcgggcctt cgacgcgctc gtgctcacgg gctccgccga 120
cggcacggtc aaggcgtggc ggcggcgcgc ggccgagggc aagggccggg ccacgcggca 180
cgccatggag cgcgtgtgc gggagggcga ccgagccgat accgccatca tagtgtgagc 240
tcaagtcaat gtagtgtacg ccggcttaca acacggtgac tgggacactg ctgtcgttcg 300
ccaagtgaat cgcttagcag cacat 325

<210> 2639
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-F12

<400> 2639

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gtgggtggcgt ccttcacccc cttctttggg tccttcatct cgttcgtcgg gagcaccatg 120
tgcgcgcttc tctcctttgt gctgccggct ctcttccatc tcagcattgt aggctcgta 180
atacccttgt ggaggcgggt gctggactac ggcatccttc tctttggtct ggctttcgct 240
ggatatggtc ttgtcactgc tctctcctcg cattgaacaa tggcccaaac agtcaaaaaa 300
gtgcagagat caggatatct tgtgatgaca ggagtcaaat ggatgctagg agcaccatat 360
atcagatagc acggctcgga ttagtgctg attgaactga tccgcttcaa cccatatagc 420
cgc 423

<210> 2640

<211> 286

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B10

<400> 2640

attccctgca tcaatttaaa tcagaaagag aaaaaaaaaa aaaaaaaaaa aaattaaaaa 60
aaaaaaaaaa aaaaaaaggg caacggttaa aaagaaaccg gcactacgat cccaatcatg 120
caacgtcata tactactgct ttcacctccc ttaaactctgt ttccttggcc gcattttaca 180
ccgcccgtac tcggtaaacc ctgggactac ccgtcctaata ccgtcctgcg tgccatcccc 240
ctttcatcag gcggcatcac catgccacaa gcccgctcaa acgccc 286

<210> 2641

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B11

<400> 2641

gggccagctt gcgcccgcaa tggcactttt ctccgcctcc tcgtcctcca ggaccggggt 60
cactgctctc cgcagcagtg ggcagcgggc gtcgtcctcc ttcctcggcg gcaagacgct 120

gctgagacag gccgaggcgg cccggccgctc gttcgccgtg cgcgccgcgg cggaccccaa 180
caggccgata tggttccccg gcagcacccc tccgccgtgg ctcgacggca gccttcccgg 240
cgacttcggc tttgatecct ggggcctcgg atctgacccg gagagcctgc ggtggaacgt 300
gcaggcggag ctggtgcact gccggtgggc gatgctcggc gcggcgggca tttcatacc 360
ggagttcctg accaagatcg gcgtcctcaa cacgctcttc t 401

<210> 2642
<211> 245
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B2

<400> 2642

gttctgcacg atttcaccac agagtgcacg agagtgaagg actgcctgct tcgagaaatg 60
gcgaaggcgc tagatgagct cggcgacgac gacgactact tcatcgacca gttcggcgac 120
agggccgaca cccatgccag gttcagctac taccctccgt gcgcgcggcc ggacctcgtc 180
ttcggcctga ggcctcactc cgacggcacg ttcctctcgc ttctcatgct agacgacagc 240
gtcgg 245

<210> 2643
<211> 242
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B3

<400> 2643

gcaacatctt agcaccaatg gcagccaaga tttttgcgct ccttgccctc cttgctcttt 60
cagcaagtgt tgctaccgag actattattc cacaatgctc acaacaatac ctctctccag 120
tgatagccgc gagatttgaa taccatcta tacaatccta caggctacaa gaggccatca 180
cagcaagcat cttacggtcg ctagcattga ccgtgcaaca accatatgcc ctattgcaac 240
aa 242

<210> 2644
<211> 244
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B4

<400> 2644

attttcagca ttcaaaaaca caccaagcta agcgactag caacgaccta acaccaatgg 60
ctaccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
tcattattcc acagtgtca cttgtccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
cggc 244

<210> 2645

<211> 237

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B5

<400> 2645

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caacataatg cagactaaca ttgtagtga cgatccaagt gattatacaa gcctatttat 120
ggaccgagga ttccagatag aacactagac tgcacactgg gactgacact atcacttgca 180
ctacctaagt cattaaagga tcaagagtag agctaccagt aaaggatatga taagaac 237

<210> 2646

<211> 237

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B7

<400> 2646

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gccctttggg agtgcccttt ctccaatcac gtttgatata accaagtagc tgccaggtat 120
tgcagcaaca atgttgtcat gatcttaggc agattgagcc acaatacatt caccaagcaa 180
tctacaacat ggttcaatcc ataatccagg aggagcaaca acaacaacca tgtgagt 237

<210> 2647

<211> 239
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B8

<400> 2647

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tgggccctct gccatggtga cgcaaaggat aacacaagta cgcaacgccg catgagttgg 120
tgtctggctt tgtcaagtgt cctctcgcg gtgcctgtct cctttcactt gtggagcacg 180
gtgagctcgc aaattcggtc actgcaaaag agcctgctgt gacccccctg aaaccaacc 239

<210> 2648
<211> 332
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-B9

<400> 2648

cacaaatacc ggaatcaagg aagctgttat agtttcactg cttggtgatg tcggttgtgc 60
aagccaagaa gttatggaat cctatgaggt tgaaatcaat ggcaaagttt tccaagctaa 120
aactgttctg aacctcaatg gacacagcat ccggccatat caaatccatg ctgggaaatc 180
agctccaata ctgaaagggtg gacagcaaac aaaaatggat gaaggggagt tttatgccat 240
tgatactttt ggatctacgg caaatggatt tgtcaggcag gacttgcaat gcattcatta 300
catgaacaac tttgatgaca gacatgtgcc tt 332

<210> 2649
<211> 242
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C1

<400> 2649

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cctccttatg ctcttggta tttctgcaag tgctgctacg gcgaccattt tcccgaatg 120
ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180

atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
ac 242

<210> 2650
<211> 313
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-017-Q1-K1-C10

<400> 2650

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acgcaggaac atgtgtaccg gcaccctgg gaccgggtga cagcggcggc gtggcgcaag 180
ttcacggatc cggcctcctg tacggcgctc tcccacgtcg cagacgttca caccctacac 240
cgccgcctcg actccgacac gggccgncct caggccgcgc gctccatcac cgtgcgggtcc 300
ccgcccgttc ctt 313

<210> 2651
<211> 276
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C11

<400> 2651

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ccgtgatcat gtaattgcat tcaaccatat gacagcattg aactctgctg catatgtaca 120
gacacaacat ctactaacat tcactccgat agcttgtgct agcaaagcta ccttcttaac 180
acaaccacaa tcattgccgt tctaccaaca cactgctcct aacgcattgc accttttaac 240
aactgcaaca actgctgtca ttcaaccaac ttgctt 276

<210> 2652
<211> 295
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C12

<400> 2652

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atctacgcac atcaactaca acaactccta catcgaaacc ttgatgcata ctctcagcaa 120
catcagccac tcaccaataa acaacctcct tcatctgaac ttaactatct attaccaaca 180
acaactacca tacaatcagc tagcatattc ctacccccat caattgcata cattcaacca 240
actatcatca tagaacttta cttcttaatt acaacatcaa catctaccac cattc 295

<210> 2653

<211> 256

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C2

<400> 2653

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tcgaatgcta ggtgaaaatg catttgaacc ttacaccatt atacaagaca gtccgaccaa 120
acaattacac tctagcgcta tacaatacca aaacgatgaa tgctagtttc tagttattca 180
ctatacaagt tatttatctt atttgactac tcgcaacatt attcatcgtc tgatgtcttt 240
ggatgaatat gggttc 256

<210> 2654

<211> 241

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C3

<400> 2654

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aatcgcagca agcaacatac ctttatcgcc cttgttggtt caacaatcgc cagccctatc 120
tttggtgcag tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc 180
tctgatcaac caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct 240
t 241

<210> 2655
 <211> 246
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-C4

 <400> 2655

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 gaagatatta gccctccttg cgtttcttgc ccttttagtg agcgcaacaa atgcgttcat 120
 tattccacag tgctcacttg ctcttagtgc cagtattcca cagttcctcc caccagttac 180
 ttcaatgggc ttcgaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc 240
 gagcgc 246

<210> 2656
 <211> 237
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-C5

 <400> 2656

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 cccgcacgcg aagaaggaca gcaaggctga gtcgaagcag agcaagggga acgctctcaa 120
 cgagatgctc gagctcagga gctgctccag ttgtctcttc ttcgagtgcc gaaaacagaa 180
 ggatctttac ctttgatggg tgaagtctcc tggaggacca tcagtgaat ttctagt 237

<210> 2657
 <211> 254
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-017-Q1-K1-C6

 <400> 2657

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 tgctcacaaa gggaagatca cagttgtgga tattggcaac aacaacatta gcccggaagg 120
 ttacatcct gtagccgagt tcctcaaaag gacaaagtcc ttacagtggg tcagtctcta 180
 catgaacgat attagtgatg agggagctgg aaagggtgct gaggctctaa aagattacat 240

aacaattttct acca

254

<210> 2658

<211> 238

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-C8

<400> 2658

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acgcggtgat gttcgggctg gagactcccc tgatggccgc gctgcagcac ctgctggacg 120
tgccccgacgg cgacgccggc gcgggcgggc acaacaagac gggcagcggc ggcagcgcca 180
cgcgcaccta cgtccgcgac gcgcgcgcca tggcggccac cccggccgac gtgaagga 238

<210> 2659

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A9

<400> 2659

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aaaattttcca gggcatattg accaatgaaa caagatgcct aagatgtgaa acagtaactg 120
caagggatga aacgtttctt gatcttagcg ttgacattga acaaaatagt tctatcacia 180
gctgcctgaa aaattttctgt tctacagaga ctttaaacgc agaggataaa ttcttctgtg 240
acaaatgctg cagtttgcaa gaagcacaga agagaatgaa gatcaagaaa gctccccaca 300
tactggtgat ccatctaaag cgtttcaagt acattgaaca gcttggccgg tataagaagc 360
tttcataccg ggttgtattc cccatggaac tgaagctcag gtatacatct gacgatgt 418

<210> 2660

<211> 286

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-D10

<400> 2660

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caccatggct ctcacctccc gcgcgctcgt cggcaagccg gcgaccagca ccagggacgt 120
cttcggcgag gggcgcatca ccatgcgcaa gactgctggc aagcccaagc cagcggcgctc 180
cggcagcccc tggtaacgggg ccgaccgcgt cctgtacctg ggcccgtgt ccggccagcc 240
cccaagctac ctgaccggcg agttccccgg cgactacggc tgggac 286

<210> 2661
<211> 433
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H11

<400> 2661

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agagattatc cctctttgcg cttcttggcc tttttgtgag cgcaacaaat gcgttcatta 120
ttccacaatg ctcaacttgc cctagtggca ttattccaca gttcctccct ccagttactt 180
caatgggctt cgaacaccca gctgtgcaag cctacaggct acaacaagcg cttgcggcga 240
gcgtcttaca acaaccaatt gcccaattac aacaacaatc cttggcacat ctaaccatac 300
aaaccatcgc aacgcaacag caacaacaat ttctaccagc actgagccaa ctagctgtgg 360
tgaacctgt cgcctacttg caacagcagt tgcttgcac caaccactt gctctggcaa 420
acatagttgc ata 433

<210> 2662
<211> 331
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H12

<400> 2662

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agaggatagc taaactctct ggtgggtgtg ctgtcattca ggtaggagca cagacagaaa 120
ctgagctcaa ggaaaagaaa ttgaggggtg aggatgccct gaatgctaca aaggcagcag 180
tcgaggaagg tatcgttgta ggtgggtggc gtaccctttt gaggcttgca tcaaaagttg 240

atgcaattat agagaccctt gagaacgatg aacagaaggt tggggctgaa attgtaagga 300
aatccttgag ctatccactt aaattgattg c 331

<210> 2663
<211> 439
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-H2

<400> 2663

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ccaccgccgc tctcctctcc agtctccac caccgctcgt ctccccgtac cgnccgcaac 120
ccccctcccc tgcgagatcc ggggcgcgat gtggcgcgagc tgcgtctcgc gaggcctctc 180
cagggccaag gcctccgcct ccaggctcct ctccacggcg tcgtcgtcct acacgggtgg 240
cgaccacacc tacgacgcgg tgggtggggg gccggcgggc gcggggctcc gggcggcgat 300
cggcctctcc gagcacggct tcaacaccgc gtgcatacc aagctcttcc ccacgcgctc 360
gcacaccgtc gcggctcagg gaggcataaa tgctgcactt ggaaacatga gtgaagatga 420
ctggaggtgg catatgtat 439

<210> 2664
<211> 374
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H3

<400> 2664

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ctcacaagct cctatagctt cccttcttcc ccatacctc tcaccagcgg tgtcttcaat 120
gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 180
accattatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttgg 240
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 300
tgctgcatac tctcagcaac atcagtttct tccattcaac caactggctg cattgaactc 360

tgctgcttat ttgc

374

<210> 2665
<211> 450
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-H4

<400> 2665

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tgctttgcct taggcttccct ggggtctttct gcaagtgcctg ctaccgcaac cattttccca 120
caatgctcac aagctccctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cgcagcaggc 240
atcttacctt tatcaccctt gttccctccaa caaccgtcag ccctattaca gcagttacct 300
ttgggtgcatt tgttggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagga 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact ggctgcattg 420
aactctgctg cttatttgca acaacaacta 450

<210> 2666
<211> 369
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H5

<400> 2666

caccaacgca aattgcacca agaaatccat cgagaggccg tcgacagggg aattaatggc 60
gtcgtcgtct agcagcagcc accgccgcct catcctcgca gccgcgcgtcc tgctctccgt 120
gctcgcggct gccagcgcca gcgccgggac ctctgcgtg ccgggggtggg ccatcccgca 180
caacccgctc ccgagctgcc gctgggtacgt gaccagccgg acctgcggca tcggggccgg 240
cctcccgctg ccggagctga agaggagatg ctgccgggag ctggcgggaca tccccggcta 300
ctgccgggtgc acggcgctga gcctcctcat ggacggcgcg atcccccgcg gcccggaagg 360
gcagctgga 369

<210> 2667
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H7

<400> 2667

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ccgacccact cgaccacac aagtgatcgt actttatgtg cccttttatt ttgtgccacc 60
aatggacca aacgtgacga ctctatataa tctgacagat gctgaaggaa caattaccat 120
tcagccatct agctcctgac taccgccatt aattacttcc attcaaccaa ctagcaacat 180
tgaactctgc tgattattta cagcagcaac atctactacc attcactcaa ctatctgatg 240
tgagccctgc tgccttcttg acacaacaac actatttgcc gttctacctg cacactatgc 300
ctaacgctga caccctctta caactgcaac aatttcttcc attcaacca ctttctatta 360
caaacccaac agtcatctac tcaacaaccc atcattgctg gagcactctc ttacat 416
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<210> 2668
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-H8

<400> 2668

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ggagaaagtg gacgtggcaa gcatggagaa aaatctctag ctgaatcagt gggatcactt 60
aacattggca ttgttgactc tgagttcatg gattcaagtc ctctaattca tgataaagaa 120
tcatgttctc ctctagaacc tgagggctcc gttaatgaag ataattttac agctgtgctt 180
tcacagttta acgatgcccc caacaaagaa agtgaaggct atggagaaag tggatgtggt 240
aagcatggag aaaaatctct agttgaatca gtgggatcac ttaacattgg cattgttgat 300
tctgagttca tggattcaag tcctctaatt catgataaag aatcatgttc tcctctagaa 360
cctgaggact cagttaatga agataatfff gcagctgtgc tttcacaatt taatgatgcc 420
cccaacaaag aaagcg 436
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<210> 2669
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-H9

<400> 2669

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actcttacct cagattcaag tgaatctgca gctcttccga tgaagcaact atttgggata 120
gatctcgtga gcaggggtcca ctgtgcagaa agtgggtgagg agagcatgga gacagaatca 180
gtatatccccc ttaagtgtca tatatctcaa gatgtgaacc atcttcatga gggaattaag 240
catggccttga agacagaact tgagaaagct tcacctacac tgggtcgaac tgcagtttat 300
actagagaat caagaataaa tgagctgcct aggtacttga ctgtgcagtt cgttcgcttc 360
ttttggaaaa gggaatcaaa ccaaaaggca aagattntac gaaaagttga ttaccactg 420
gaaatggat 429

<210> 2670
<211> 428
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A1

<400> 2670

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taggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt tcctccaaca 120
atcatcagcc ctattacagc agttaccttt ggtgcattta ttggcacaaa acatcagggc 180
acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacaacagtt 240
tcttccattc aaccaactag ctgcattgaa ctctggttct tatttgcaac aacaacaact 300
accattcagc cagctatctg ctgcctaccc ccagcaattt ctccattca accaactgac 360
agcttttgaa ctctcctgct tatttacagc agcaacaact actaccattc agccagctag 420
ctgggtgtg 428

<210> 2671
<211> 427
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-036-Q1-K1-A10

<400> 2671

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agcgcacatgca ggtggagccg cagcaccggt accaggcgat cttcggcttg gtcctccagt 120
ccatcctgca gcagcagccg caaagcggcc aggtcgcggg gctggtggcg gcgcagatag 180
cgcagcaact gacggcgatg tgcggcctgc agcagccgac tccatgcccc tacgctgctg 240
ccggcgggtgt cccccactga agaaactatg tgctgtagta tagccgctgg ctagctagct 300
agttgagtca tttagcggcg atgattgagt aataatgtgt cacgcatcac catgggtggc 360
agtgtcagtg tgagcaatga cctgaatgaa caattgaaat gaanagaaaa aagtattgtt 420
ccaaaaa 427

<210> 2672

<211> 286

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A11

<400> 2672

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ggtactgctc tttcagtagc gccagttact cagcactgac cataagtgat actgacgtac 120
catcacttgc tgacttagtc aacaagcaga agatcacagt attgcataat actggctctg 180
atgatccaaa ctccaaaggt gcaccaaagg ctgatcttga gagaatatgt tgagtatgat 240
caagcacgag ctctcataac cgatggttct ggtgacgtac attgct 286

<210> 2673

<211> 133

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A12

<400> 2673

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gtgccctcat agcggcatgt gtttcctaaa aataatcaat atattgattg agatttatct 120

cgatatatct ctg

133

<210> 2674

<211> 243

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A2

<400> 2674

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gtttttatga cttttatgtt cttgtatcgt gaaccgcagt gaacaacggt tgttgcaagt 120
tccagggata tctttggaag tggtaaacia atgcgtctta tttctatgta aaaaaaatca 180
atgaaaaaaaa acccacatag tttaacactt ccatgttcca aaatgagtag taactaggct 240
ttt 243

<210> 2675

<211> 443

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-A3

<400> 2675

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tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacia caagcgcttg 240
cggcgagcgt cttacaacia ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccttgccgnc tacttgcaag agcagctgct tgcacccaac ccacttgctc 420
tggcgaacgt agttgcaaac cag 443

<210> 2676

<211> 308

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-036-Q1-K1-A4

<400> 2676

ttcataatca caccatttat ttcacactat caacgaccta acaacaagaa gttttaatat 60
attatccctt cttgcactac tagccctttt tgtgagctca acaaatgcgt tcattattcc 120
acaatgctca cttgctccta attccattat tccacaattc ctaccaccaa ttactttaat 180
gatcctaata cacctaactg tacaagccaa cattcatcat caatcacttg cttatagcat 240
attacaacaa ctatattacc aattgcaaca actattcttt atcaatctaa caatacaatc 300
catcacaa 308

<210> 2677

<211> 218

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-036-Q1-K1-A5

<400> 2677

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accaatggc agcgcgaaag atattttgac ttcctttatn ngctccttgc gtctttcgtg 120
caagtgcctg nnntaccgca accanntttt cccaccaatg gctcnaacaa gctcnntat 180
agcnnttcac tttctatttc cccaatacc ctttctca 218

<210> 2678

<211> 447

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-H1

<400> 2678

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atggcaaacy cgccgaggat cctggccctc ggctgctgc tagcgtcct gtgcgctgcc 120
gccggcccg cgcgcgcga gaactgcggc tgccagccta acttctgctg cagcaagttc 180

ggctactgcg gcacgaccga cgactactgc ggcgacgggt gccagtcggg cccgtgccgc 240
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 gtggtcagcg acgcgttctt caacggcatc aagaaccagg ccgggagcgg gtgcgagggc 360
 aagaacttct acaccggag cgcgttcctg agcgccgtca acaagtaccg gggcttcgcc 420
 catggcggga cggangtgga gggcaag 447

<210> 2679
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F6

<400> 2679

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 tcctatggca gcaggtatag gtggtggcg cggtgggctc cacctcaacg gcgccgccct 120
 gttcggcaat ccgatggcg cggccagcc catgagcttc taccaccaga tgggcacggg 180
 gactgcttgc gctggcggct tcgatgtttc tgcgccggag agtaggccgt cctcgatggc 240
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 cccagggcct gcgaccacca ccaccataga gatggatggc gtgtggaagt actgaaaacg 360
 tggaggggtg aaggcaaaga catgaattcg cataaattaa atatgcatgt aatatctata 420
 tctgcattgc atttt 435

<210> 2680
 <211> 437
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F7

<400> 2680

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 agagaggcta gtaggtggc ctcgaacgaa gatgttggcg gtgttcagcg ggcaggtggc 120
 ggaggtgccg gcggagctgg tggcggcggg cagccggacg ccgtcgccca agacgaaggc 180
 gtcgcagctc gtggggcgct tcctggccgc gtccgagccg gccgtgtccg tgcagctcgg 240

cgaccacggc cacctcgctt actccacac caaccaggcg ctctccgcc ccaggtcgtt 300
 cgcgggccaag gacgaggtgt tctgcctgtt cgaaggggtg ctggacaacc tgggtcggct 360
 gagccagcag cacgggctgt caagcaaggg cgccaacgag gtgcttctcg tcatcgaggc 420
 ctacaagacg ctgcgcg 437

<210> 2681
 <211> 431
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-035-Q1-K1-F8

<400> 2681

gttacctttg gtgcatttat tggcacaaaa catcagggca caacaactac aacgactggg 60
 gctagcaaac cttgctgctt actctcagca acagcagttt cttccattca accaactagc 120
 tgcattgaac tctgcttctt atttgcaaca acaacaacta ccattcagcc agctacctgc 180
 tgcctacccc cagcaatttc ttccattcaa ccaactggca gcattgaact ctctgctta 240
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 cttgatacaa ccacagtgtg tgccgttcta ccagcacgct gcgcctaacg ctggcaccct 360
 cttacaactg caacaattgc tgccattcaa ccaacttgct ntgacaaacc cagcagcggt 420
 ctaccaacaa c 431

<210> 2682
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F9

<400> 2682

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 accaagatat ttccctcctt tatgctcctt gctctttctg catgtgttgc taacgcgaca 120
 attttccctc aatgctcaca agctcctata gcttcccttc ttcccccata ccttccatca 180
 atgatagctt cagtatgtga aaaccagct cttcagccct ataggctcca acaagcaatc 240
 gcacaagcaa cataccttta tcacccttgt tgtttcaaca atcgccagcc ctatctttgg 300

tgcagtcatt ggtacaaacc atcagggcac agcagctgca gcaactcgtg ctacctgtga 360
tcaaccaagt agctctggca aacctttctc cctactctca gcaacaacaa tttcttccat 420
tc 422

<210> 2683
<211> 403
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-G1
<400> 2683

ggatcgtcga accgaacaac atggagaagg tcaatggtct tggccggggc cctggtttgg 60
gaagttgcaa cggtttttgc aaggcaaagt ccttgccctt gcccggggct gaagggttgg 120
aacggggctg gccccggcct gacaacaata atggcccccg gcggtgtac cctaaccgga 180
gtacctgagg agccggagtg caccgctgg cgggggccct actacgccgg tgtggcagcc 240
gagcgccatg tccagccgct ccgggcacag tgctgccagc agcagatgaa gatgatggac 300
gtgcagtccg tcgcgagca gctgcagatg atgatgcagc ttgagcgtgc cgctgccgnc 360
agcagcagcc tgtacgagcc agctctgatg cagcagcagc agc 403

<210> 2684
<211> 421
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-035-Q1-K1-G10
<400> 2684

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acagtttctg ccaacgctca gtcaactagc catggtgaac cctgccgcct acgtacaaca 120
acaacaactg ctttcatcta gcccgtcgc tgtgggcaat gcacctacat acctgcaaca 180
acaattgttg caacagattg taccagctct gactcaacta gctgtggcaa acctgttgc 240
ctacttgcaa cagctgcttc cattcaacca actgactctg tcgaactctg ctgcgtacct 300
acaacagcga caacagttac ttaatccatt ggtagtggct aaccattgg tcgccgcctt 360

cctacagcag caacaattgc tgccatacaa ccagttctct ttgatgaatc ctgtcttgtc 420
g 421

<210> 2685
<211> 360
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-G12

<400> 2685

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ttatgtacag cagcaacaac tactaccatt cagccagcta gctgggtgtga gccctgctac 120
cttcttgata caaccacagt tgttgccgtt ctaccagcac gctgcgcta acgctggcac 180
cctcttataa ctgcaacaat tgctgccatt caaccaactt gctttgacaa acccagcagc 240
gttctaccaa caacccatca ttgggtggtgc cctcttttag atttcttatg agttatagtt 300
caataataaa gttttttgtc tgatgtttgt ggcttcccag aaataagaaa gtacatttct 360

<210> 2686
<211> 208
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-G3

<400> 2686

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ggagtttccc caactggtaa cattccaaaa caggaagggt aaaatggtga actttttttt 120
cccaagaaag tgttgggcca caaccaggat ctttaattgcc aaggacaatc cttttgccaa 180
aatcaacatt ggcaatttga atccaaat 208

<210> 2687
<211> 430
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-G4

<400> 2687

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accacgcaag gttcaagatt atccggttta aagacatcag aaaaggctgc ggcatggata 120
gataccaaag ggtagagaag cctcggaatg acacgccaat cagccagaat gagatcagaa 180
tcactactca ggggaggatg aggaactata tcagctatgg gatgtcgctg cttgaggaaa 240
atggacatga tgagattagt atcaaggcca tgggacgggc cataaataag acagttatgg 300
ttgttgaatt gatcaagaga agggttggag gtcttcatca gaacactgct actgaatctg 360
ntgatatcac agacacatgg gaacctttgg aagaaggcct tctcccacta gagacaactc 420
ggcatgtgtc 430

<210> 2688

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-G5

<400> 2688

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tagccctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc attattccac 120
aatgctcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg gcgagcgtct 240
tacaacaacc aattgccc aa ttgcaacaac aatccttgcc acatctaaca atacaagcca 300
tcacaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atgggtgaacc 360
ctgccgncta cttgcaagag cagctgcttg catccaaccc acttgctctg gcgaacgtag 420
ttgcaaacca gcaacaac 438

<210> 2689

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-G6 .

<400> 2689

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 caatgctcac ttgctcctag ttccattatt ccacagttcc tcccaccagt tacttcaatg 180
 gccttcgaac acccagctgt gcaagcctat aggctacaac aagcgattgc ggcgagcgtc 240
 ttacaacaac caattgccc attgcaacaa caatccttgg cacatctaac aatacaaacc 300
 atcgcaacgc aacagcaaca acagttccta ccagcactga gccacctagc catggtgaac 360
 cctgtcgctt acttgaaca gcagctgctt gcatccaacc cacttgctct agcaaacgta 420
 gttgcaaacc agcaacaac 439

<210> 2690

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-G7

<400> 2690

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 gcccgtgtcc tcagttagag cgcctctttg tgcagctccc gacaaacacc ggtgatgcat 180
 tcacggagaa cttcttgaag gtggaggagg aggacccgcc aaaaggtgga ttagaaaacc 240
 ttctgcttagc caagctgaca aatttcaagg ggcaccgtaa tgagatgcag ctagtagcat 300
 ttctgcttag acagtctagt agtctgaaga aactatttct gattgctccc aaagaggatc 360
 accctcaagg actgcgcaag ggtcagtcag atatgctgcc tga 403

<210> 2691

<211> 460

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-G8

<400> 2691

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 caacttctgg ggccacgtgt acccaaccg gctcgccatc cctcacctca ggagaagccg 120

tggccgggac gtggggcgtca cctccaactc gtcctacata ttcacgcgga ggaacacctt 180
 ctacaatgcc agcaaggcgg cggcgctcag cttctacgac accctgagga tggagctggg 240
 cagcgacatc cgcacaccg aggtgggtgcc cggcggtgtg gagtctgaga tcaccaaggg 300
 gaagatgctc accaagggag gcgagatgaa ggtggaccag gacgaaagag acgccatcct 360
 ggggccgacg cgggccgagc ccgtgggcga cttcgccagg accgtgggtgc gcgacgtgtg 420
 ccgngtgcg aggtacgtgt tcgagcccag gtggtacatg 460

<210> 2692

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-G9

<400> 2692

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 agcaacgacc taacaccaat ggctagcaag atattagccc tccttgcgct tcttgccctt 120
 ttagtgagcg caacaaatgc gttcattatt ccacagtgt cacttgctcc tagtgccatt 180
 attccacagt tccttcacc agctacttca atgggcttcg aacatccagc cgtgcaagcc 240
 tacaggctac aactagcgct tgcggcgagc gccttacaac aaccaattgc ccaattgcaa 300
 caacaatcct tggcacatct aaccctacaa accattgcaa cgcaacaaca acaacaacaa 360
 cagtttctgc catcactgag ccacctagcc gtggtgaacc ctgtcaccta cttgcaacag 420
 cagctgcttg catccaacc acttgctctg gcgaacgt 458

<210> 2693

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F4

<400> 2693

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 tgaagaacag cagcttcggc aaccaggccg ggggtgggtc aagctttcac tcgagcttcc 120
 ataacagctc tagtggcaat cagttcgggtg atactacaag ctttcatgcc agctatggta 180

acagcagcca gaacaatcag acgggtgaca atccgagctt cccacccagc tccagcaaca 240
atcagtccgg ggaatggtctc agttttcatg aaaggttcta tggatcacgc ggaagggacg 300
agagcagatc aaacaatgat ggattccgtg ctaggagcag aagtcctggc aagcctgtgg 360
aagtttccaa ctggtgattg catccactag gtgcaatcca atttttgcga tggtgacgaa 420
accaagtaaa agatg 435

<210> 2694
<211> 432
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-E12

<400> 2694

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cgactcctgc aggaaaggca aagaaggga agaccgagct agagacactg gcacctgatg 120
ccactccagc aggaaaggcg aagaaggta aggtcgagaa gacagctcct gaggccactc 180
cctcaggcaa ggggaagaag ggtggggaca aactggagaa gccagcagcg ctcgatcgct 240
caccttcaga cagcaagtct gaaaagcttg cacatttttc ccgcacatgg gagaaagatg 300
atgagatgaa gatcttggag gctctcgcg cccatgtcaa gagtgagggc gtgctgccga 360
agactgattn tcttcttgct agtgttcgtg accgccttgt caggaagaac tgcaactaca 420
cggatatata tg 432

<210> 2695
<211> 415
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-E2

<400> 2695

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tattgagtta caaaaattgg ctaaagcttg gggaagtctt tgtgcgtctt catcaggttg 120
tgaacgcaat tggagtacct ttgaatttat ccatacaaag aaaagaaacc gattgttgca 180

taagaggttg aattctattg tcttcatttc ctacaacaga aagatgaaag ctaggttcca 240
 aaaactacgc cagaagaagg ggaaaaactt tgatccattg gttcatgagg acttcaactg 300
 ggacaatgag tgggctgatt ctttgcattg agtccttgaa ggtgggncgt ggtgtgagtg 360
 tgaccttaca tgggaccttg tggataatgc cattggagca tcgcaagcac ttcgt 415

<210> 2696
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E3

<400> 2696

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 gaaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa ctggctgcat 180
 tgaactctgc tgcttatttg caacaacaac taccattcag tcagctagct gctgcctacc 240
 cccagcaatt tcttcattc aaccaactgg cagcattgaa ctctgctgct tatttacaac 300
 agcaacagct accaccattc agccagctag ctgatgtgag ccctgttgcc ttcttgacac 360
 aacaacagtt gttgccgttc tacctgcacg ctgcgcctaa cgctggcacc ctcttacaac 420
 tgcaacaa 428

<210> 2697
 <211> 434
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-035-Q1-K1-E4

<400> 2697

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 cctggcccca ttaccattc caaacatcg aacccacca caacaacagg tcttacagca 180
 ctggaccaac tagatgtggt gaaccctgtc ggctacttgc aacagcaggt gcttgcatcc 240

aacccacttg ctctggcaaa cgtagctgca taccaacaac aacaacaatt gcaacagttt 300
 ctgccagcgc tcagtcaact agccatgggtg aaccctgccg cctacctaca acagcaacaa 360
 ctgctttcat ctagccctct cgatgtgggt aatgcaccta catacctgca acaacaactg 420
 ctgcaacaga ttgt 434

<210> 2698
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E5

<400> 2698

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 cgtgggCGag aatgttcaga taatcgttct tggcacggga aagaagaaaa tggaggagga 180
 attaatgcag ctggaagtga aatatccaaa cattgctaga ggcatagcga aattcaatgt 240
 tccattggca catatgatgt ttgctgggtc tgacttcatt attgtcccaa gtaggtttga 300
 gccatgtggT ctcatcagT tgcaagggat gagatatgga gtgattccca tctgttcacT 360
 acctggagga cttgttgaca cggttgagga ggggtgtcac cggattccac atgggttctt 420
 tcaatgtcga gtg 433

<210> 2699
 <211> 430
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E6

<400> 2699

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 ctccgcgtcg agatctttgc cgaggcggtg accgtcgagg gatcgccatg gcgttgaggg 120
 cgtccccCGt gtgcgatggc accgcggcag cgccgtgcc gcctttcgcg cggaggagga 180
 tggcccgtgg ggtgggtggT gccatggcgt ccacgatcga cagggtccaa actgccaaag 240
 aaccctatac cccttcacga gaggtacatc gccaaattac ccatgtcact accacctcaa 300

aagcgggaga ttctcaattc acttcaacct tgggccaagg ataacctact gaacctactg 360
aagccagttg aaaagttatg gctgtcacag gacttgctac cagagccttc atatgatggg 420
tcttatgatg 430

<210> 2700
<211> 394
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E8

<400> 2700

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tggtgcaaac attcggtctg agatgaacta cagccctgat aagttcaagt tatcacagtc 180
gattatggag gtgcttgctg tggaggtgga cactcgtgca cgggtgattg ctgccctatg 240
gcagtatatt aaagcaaaga agcttcagaa cccaaatgat ccttccttct tcatgtgtga 300
cccttaattg acgaatgtgc atgctgagga caagctcaag cttgcaatgt tgtcacacat 360
gatatctcag catctgtctg cctcaccacc catc 394

<210> 2701
<211> 397
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E9

<400> 2701

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gctgggagaac tactcctaca acatgcgcaa cacgatcaag gacgagaaga ttgctgctcaa 180
gctgcccggc gatgacaaga agaagatcga ggacgccatc gacgcccga tcagctggct 240
ggacgccaac cagctcgccg aggcggacga gtctgaggac aagatgaagg agctggagag 300
cctctgcaac cccatcatcg ccaagatgta ccagggcgcg ggtgaagaca tgggcggcgc 360
tggcggcatg gacgaggacg cccctgccgg cagcggc 397

<210> 2702
 <211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F1

<400> 2702

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agtactatct tggccctgct cctttgcagg atatggcaag gcaaattgct acagccaatg 180
gccctactgg ctataatagg gattacctgt tctcaatgga gaaggcatta gccagcatta 240
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caaaggagac caagatcact ggtgccaatg cttccctgaa atcacatgcc cctcttgctgc 360
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tggacctcta ctcggaatct a 441
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<210> 2703
 <211> 364
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F10

<400> 2703

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aacacttaat acctttctac catcaccttt tctcctaaca cctcatccct cttacaacta 180
caacaattga taacctttgt ccaacttact ttacataacc aaaccccctc ctaccaacaa 240
cacatcactt tataaacctt cttttacatt ccttattact tataattcaa taataaagtt 300
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aata 364
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<210> 2704
 <211> 485
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-F11

<400> 2704

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ggccccgcatc gagaatggcn gtngcgtcgg atggttgagt acccgcnntg cttcgtcggc 180
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aggagctgga cggccgcaac atcacgtca acgaggcca gtcccgcggc ggccgtggag 420
gcggcggcgg cggctacggt ggtggccgtg gaggcggcgg ctacggcggg ggcgggcgcc 480
gtgat 485

<210> 2705

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F12

<400> 2705

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ttgtgcctcc ttatgctcct tggcttttct gcaagtgtcg ctacggcgac cattttcccg 120
caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cacagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca tcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
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aactct 426

<210> 2706

<211> 426

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-035-Q1-K1-F2
 <400> 2706

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 agtactatct tggccctgct cctttgcagg atatggcaag gcaaattgct acagccaatg 180
 gccctactgg ctataatagg gattacctgt tctcaatgga gaaggcatta gccagcatta 240
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 caaaggagac caagatcact ggtgccaatg cttccctgaa atcacatgcc cctcttgtgc 360
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 tggacc 426

<210> 2707
 <211> 443
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-F3
 <400> 2707

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 cttgcaacag cagctgcttg catccaaccc acttgctctg gcgaacgtag ctgcatacca 180
 gcaacaacaa cagctgcaac agtttatgcc agtgctcagt caactagcca tgggtgaacc 240
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 cctacaacaa cagttgctgc aacaaattgt accagctctg actcagctag ctgtggcaaa 360
 ccctgctgcc tacttacaac agttgcttcc attcaaccaa ctggctgtgt caaactctgc 420
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<210> 2708
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<223> Clone ID: LIB3061-035-Q1-K1-E10

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tcattcctac tttcgatgtc aagtgcgtaa agccaacaat attcagcaca ttcaaggcaa 240
gatctagtgc cttgatgaat gctcgtcttg ctgatgtgtg cattggcacg tccgcagcac 300
cgacggtcct ccctgcgcac tactttgaaa ccgtggatca ccgactggc gcacgcgta 360
gcttcaacgt tatcgacggg ggccctcgccg caaacaatcc gactctggtg gcgatgggtg 420
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<210> 2709

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H10

<400> 2709

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ggcgcgcgcc gaagaagagc gacaacacca agtactacga gatcctcggg gtgcccgaagt 180
cggcgtccca ggacgacctc aagaaggcct accgcaaggc agctatcaag aaccaccccg 240
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atccagagaa acgtgagatt tatgatcagt atgggtgaaga tgcccttaag gaaggaatgg 360
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<210> 2710

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-H11

<400> 2710

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ccacaatgct cacaacaata cctctctcca gtgatagccg cgagatttga ataccatct 180
atacaatcct acagggtaca agaggccatc acagcaagca tcttacgggc gtttagcattg 240
accgtccaac aaccatatgc cctattgcaa caaccatcct tagtgaatct gtatcttcaa 300
agaatcacag cacaacaact acaacaacgg ttgcttncaa caattaatca agtagttgca 360
gcgaaacctg ctgcttacct tcagcatcaa caatttcttn cattcaatca actaactgg 419

<210> 2711

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H12

<400> 2711

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tgaagctggt gcttgtgggt cttgctttca ttgctttagt atcacgtgtt tcttgtacac 120
agacaggcgg ctgcagctgt gttcaacaac aaatccatga gcagcaacat cattcacaac 180
agcatcatac acagcatcat caacatgttc caccaccaca gcataaccag ctgcagctgt 240
caccaactac tccaagttca catgcaacca cttaaacatc aataacaacg cgaagtctat 300
gttcaacatc gacaacaaca accgaatcac cacctgc 337

<210> 2712

<211> 379

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-H2

<400> 2712

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ccgncgctgt cgctggaggg cggccttgcg gcgagctcc gcccgccaa tctcgcccag 180

cggggtgetca gectcttctt caacgtccgc ccgggctctg acctctccca cttccagctg 240
 ccggcgacgt tcaacctgcc caagtcgcag ctgcagctgt acggcgaggg cgtgtactgc 300
 gccggcgagg acctgctggg gcgggtgcgcg cgggggcgcg acagcctgga gcgcctggcg 360
 tgcgtggtgg cgtggagca 379

<210> 2713
 <211> 377
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H3

<400> 2713

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 tcattattcc acagtgetca cttgctccta gtgccagtat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagecgcttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgccatca ctgagccacc 360
 taaccgtggt gaaccct 377

<210> 2714
 <211> 382
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-016-Q1-K1-H4

<400> 2714

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 cctgcgcca ctctgcccc tgctgctggc gtggctgccc agcctggccc agccaccagt 180
 ggcctaggca ccgctggcca cgaccacggc ttggcccaca ccagcttggg cgtggctggt 240
 ctggggttgt ctggtccggg cctcgtgct gtcagcccct atgctgtcgg cgtgccctag 300

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<210> 2715
<211> 353
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H5

<400> 2715

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tcagccttat ttttggagca atcattggta ctaatactgc aggtacatca ggtgcattaa 180
ctggcgctaa atgtgatgga acaactactt ctggaacacg tgcttgcata ctttgatgaa 240
taatattagc ttccattgat acaactggcg aactgaagg ctgatgataa tttggcgcaa 300
caactattac catttaggct agtagatact gccgactact atcagcaaca act 353

<210> 2716
<211> 243
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H6

<400> 2716

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aacatttacc agccctgtct ctggagcagt catcagtcct atcactgcag gtacatcagg 180
tgcactctact ggcacaaaat atcatggctc aactactact acaactcgtg cttgcaaact 240
ttg 243

<210> 2717
<211> 376
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H7

<400> 2717

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ttcggctggt aacaagttcc ggatgtcact gggctacca gtggcagcta ctgtgaactg 120
tgccgataac actggagcca agaacctgta catcatttct gtgaagggaa tcaagggctg 180
ccttaacagg cttccttctg cctgtgttgg tgacatgggt atggctaccg tgaagaaggg 240
aaagcctgac cttagaaaga aagtgatgcc agctgttatt gtgaggcagc gcaagccatg 300
gcgccgaaag gatgggtgtct acatgtactt tgaagacaat gctggagtga atgtgaaccc 360
aaaagggaga gatgaa 376

<210> 2718

<211> 310

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H9

<400> 2718

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caacaaatgc gttcattatt ccacaatgct cacttgctcc tagtgccatt attccacagt 120
tcctccctcc agttacttca atgggcttcg aacacccagc tgtgcaagcc tacaagctac 180
aacaagcgct tgcggcgagc gtcttacaac aaccaattgc ccaattacaa caacaatcct 240
tggcacatct aaccatacaa accatcgcaa cgcaacagca acaacaattt ctaccagcac 300
ttaaccaact 310

<210> 2719

<211> 244

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A1

<400> 2719

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gggcacaaca actacaacaa ctctgtgctag caaaccttgc tgcctactct cagcaacaac 180

agtttctgcc attcaaccaa ctagctgcat tgaactctgc tgcttatttg cagcaacaac 240
aacc 244

<210> 2720
<211> 444
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A11

<400> 2720

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aaccattttc ccacaatgct cacaagctcc tatagcttcc tttcttccgc catacctatc 180
accagcggtg tcttcagtat gtgaaaaccc aattcttcaa ccctacagga tccaacaggc 240
aatcgcagca ggcattctac ctttatcacc cttgttctc caacaaccgt cagccctatt 300
acagcagtta cctttggtgc atttggtggc aaaaaacatc aaggcacaac aactacaaca 360
acttggtgta ggaaaccttg ctgcctactc tcagcaacag cagtttcttc cattcaacca 420
actggctgca ttgaactctg ctgc 444

<210> 2721
<211> 399
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A12

<400> 2721

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ggatggacga tgatgtcgct cccaaaaagc cgcagcctga agtattcgat ggaccactgc 180
tgtcttcgcg cgataaagcc aagattgaac ggagaaaaag aaaagaggag aggcaaagag 240
aggttcaata tcaaatgcat gttgcggaga tggagacact tagggctgga atgcctcctg 300
tttatgtaaa ccacagtaat gatgggtggc cagctgttag ggatatacat atggagaact 360
tcagtgtcac tgttggtggt cgtgatctaa ttcaagaag 399

<210> 2722
<211> 244
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A2

<400> 2722

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tgagaagaga tggctaagat cgccgcggcg gcggcgggcg cgctgtgctt cgcgccctg 120
gtggccgtgg ccgtctgcc aaggcagggtc gagcggcaga ggctcagga cctgcagtgc 180
tggcaggagg tccaggagag cccgctcgac gcgtgccgcc aggtcctcga ccggcagcta 240
accg 244

<210> 2723
<211> 244
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A4

<400> 2723

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cgctccgact gagttgctga ttggggataa tcatgttctc tctaagtga tgaacatgtc 120
tgggaatgat gataagccac atgctgctgc agacagaata aaggcagcca cgttatcagt 180
gactaaggga ttgagcaggg ctcaagctga atgggctacg actgttgctg cccgcaatgt 240
gaat 244

<210> 2724
<211> 246
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A5

<400> 2724

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tcgacgctca ccgcgcagcc atggcggaac agactgagaa ggctttcctc aagcagccaa 120

aggttttctt cagctcaaag aaatctggca agggtaagaa gcctggcaag ggcggcaacc 180
gattctggaa gagcattggc cttggcttca agactcccag ggaagcaatc gaagggacct 240
acattg 246

<210> 2725
<211> 239
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A6

<400> 2725

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atgctcctgg gaatgtgaga aagttcagag accgagacca ttgacaagga ttctgtgcat 120
gatgctactg ctgtccttag ctcatatgaa atgtcaagat caacaacaca ggctcaggca 180
cctgcagtgc ttgcaagagc ttcaggatag cctgctagac tcgtaccgac agaattctaa 239

<210> 2726
<211> 237
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-017-Q1-K1-A7

<400> 2726

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ggaagtgcct gctcctcagg cagataatgc ttccaagatt gaagctcctt caaaaggacc 120
tgtccagttg cacaaggcaa aagctgctct cgatgctgat gatgattatg aggccgagcc 180
cccgaaggag aaggcaaagc ctacgggggc tgatgtggcg aagttgaaag agatgaa 237

<210> 2727
<211> 407
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-H1

<400> 2727

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gcagccaaaa tattttgctt ccttatgctc cttggtcttt ctgcaagtgt tgctaccgca 120
 accattttcc cacaatgctc acaagctcct atagcttccc ttcttcccc atacctctca 180
 ccagcgggtgt cttcaatgtg tgaaacccca attgttcaac cctacaggat ccaacaggca 240
 atcgcaacag gcatcttacc attatcacc ttgttctctc aacaaccgtc agccctatta 300
 cagcagttac ctttgggtcca tttgggtggca caaaacatca aggacaca actacaaca 360
 cttgtgctag caaaccttgc tgcatactct cagcaacatc agtttct 407

<210> 2728
 <211> 410
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F2

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 ttccttctat cgctcgtcgc cattccttac cccctgttcc tcgaatcgcc ggagtacagc 180
 gctaagggcg gcggccgttc gtgggtcggc ggtgacgcgg gccagcgga cggctctccgc 240
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 ggagcttgat acaaccaaca tgctccttcg ccagcgcac gtcttctctg gttccccggt 360
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<210> 2729
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F3

<400> 2729

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 cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
 gcttcagttt gtgaaaaccc agcccttcaa ccctacaggc tccaacaagc aatcgcaaca 240

agcaacttac ctttatcacc cctgttcttt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta cac 433

<210> 2730

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F4

<400> 2730

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ttcttccatt caaccaactg gctgcattga actctgctgc ttatttgcaa caacaactac 180
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cattgaactc tgctgcttat ttacaacagc aacagctacc accattcagc cagctagctg 300
atgtgagccc ttgtgccttc ttgacacaac aacagctggt gccgctctac ctgcacgctg 360
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<210> 2731

<211> 354

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F5

<400> 2731

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acacaagtac agtaccaatg cttctgatag tcgcctacga ctaagagcac acagataagg 180
aggagcgtga tgcacttatt actgatcggg acattctgat cagccttcac tctatataac 240
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<210> 2732
 <211> 364
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F6

<400> 2732

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acaagaagtg ggccaatgct tctgatagac ttgaacgaat atgagcagac agatctggtg  180
gagagtgata cagttgttgc tgacctgcac aatctgatca cgtttctactg tctagaagat  240
tgcattctaca tggcttatgt acacaaacta caagtagaac agtataagca tatacacata  300
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ggat                                                                    364
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<210> 2733
 <211> 387
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F7

<400> 2733

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gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg  180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc  240
tttatcacc ttgttcctgc aacaatcatc agccctatta catcagttac ctttggtgca  300
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<210> 2734
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F8

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<210> 2735

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F9

<400> 2735

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gtactgcatg atgcaacagg ggcttgccag cttgatggcg tgtccgtccc tgatgctgca 240
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taacatgatg tcaccattga tgatgccgag catgatgtca ccaatggtct tgccgagcat 360
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<210> 2736

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G1

<400> 2736

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agctagttaga catggaatgc agctacttga cagtagattt cttcaggaag cttoctcagg 120
atgttgagaa ggggtggaaat ccaagccact ctatTTTTga tagatataat gactcttatac 180
ttaGacgaat tggacaaact gttctgtcat atgttaatat ggtgtgttcg accttgagga 240
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atcacttctt cactgaactg ggagcaagag agatgaagca gctt 344

<210> 2737
<211> 364
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G10

<400> 2737

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caagctccta tagcttcctt tcttcccccg tacctctcac cagcgggtgtc ttcggtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct 240
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gcct 364

<210> 2738
<211> 426
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G12

<400> 2738

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tgtaatgaga gcagtggcac tcgatgtcca gtctctgatac aatgagcggg aaaatatcaa 120
gattcaggaa tcattatgca gctcatattt tggtaacagt atcaaggaaa tggaaaatga 180
ggttcaaatt ctaaaagatg ggtcaagaaa gatgaattct gatatatcat cagtagcaaa 240

ggacacgaca gaaaagggtcg aagttttgca ttcagctatc gagaagggttc aagttatagc 300
 tgatgaatgg gtcaagatga actatactat taacagaata tggtcattca ctaaggagac 360
 agagaaaagg gtggaggtct atattcaaga ttaatgaagg gctttaagca gacgaagaga 420
 aaagtg 426

<210> 2739

<211> 358

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G3

<400> 2739

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 aaggaaactg agcattcgaa gacaccgttc atcgcgagag ttttcatgag catttcaggt 120
 tcctcacaga acacgttccc tgacatcgat ttcaccgaag aaggaacttc tgcagctgga 180
 ccaagcagtc ctaagtcgct ccgatgtctg gcagagccaa gagtggtcag gaggattagg 240
 gttgtcgccg agaagactcc gatccagcac gttcttcaac ccccgacgaa cggttttttg 300
 gttggcctta ccatcggcat ggttcctgtc cttgaagaat tttgtttcgg ggctgatg 358

<210> 2740

<211> 243

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G4

<400> 2740

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 gcccccgctg ctccagagac ggcctcattc gagaccagc ttcgttataa gagtcagtta 120
 caaatattatg ctccagaagcg aggcaaactg ctgccttcat atcgtagcat tcatggaggt 180
 gtctcttcat gcacctatct ttaagtcaca agtagccatc gatgggtcaaa catttgacag 240
 ccc 243

<210> 2741

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G8

<400> 2741

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gctccttggt ctttctgcaa gtgctgtac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcctttcttc ccccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgctggcta 360
ctctcagcaa cagcagtttc ttccattc 388

<210> 2742

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-G9

<400> 2742

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cgagatattt tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat 120
tttccctcaa tgctcacaag ctccatagc ttcccttctt ccccatacc ttccatcaat 180
tatagcttca gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc 240
agcaagcaac atacctttat cgcccttggt gtttcaacaa tcaccagccc tatctttggt 300
gcagtcattg gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat 360
caaccaagta gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt 420
caaccaact 429

<210> 2743

<211> 335

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-F12

<400> 2743

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gctccttggt ctttctgcaa gtgttgctac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaaa 180
cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccattatc 240
acccttggtg ctccaacaac cgtcagccct attacagcag ttaccttggg tccatttggg 300
ggcacaaaac atcaaggcac aacaactaca acaac 335

<210> 2744

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D4

<400> 2744

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agagagtttt gtgcatttgg gggccggggg caagagagag agagagagcc atggcggcgg 120
accagcagcc gcagctgcag gaggagatga acgacgctgc cggcggcggc ctcaggctgc 180
ctccaggggt cgccttcac ccgagcgact tcgagattgt cagcttctac ctcaccaaca 240
aggtgctcaa cagcgcttc acctgcaccg acatcacgga ggccgacct aacaagattg 300
agccatggga ctttccgagc caggcgaaaa tgggcgagaa agagtgggtac ttcttctacc 360
agaaggaccg caagtaccg acggggcttg aggcg 395

<210> 2745

<211> 261

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D5

<400> 2745

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ctaagaagac tttagctggt gaagcgcgtc ttgtacttac agcgagtgc atataggcgg 120
ttattagtgc acaatgctca cagctccta gtgccattat tgcagaggta cttcgaaccg 180

gtacttcaat gggctgctga cacctagctg ggcgagtc aa tatgccacaa cctgcgcttg 240
cagcgagcgt cttacaacaa c 261

<210> 2746
<211> 293
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D6

<400> 2746

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ctaagacgat tttacatgtc gtagcgcttc ttgtacttat agcgagcgca atatatgcgg 120
ttatcagtg cacaatgtca cacgctccta gtgcaacaat tgcagaacta catcgtacaa 180
gctcttgaat aggcagctaa cgcctagctg ggtgagtgct tatgccagat gatgcgcttg 240
atgcaagtgt cttagaccaa ctattttgcg aattgagaaa agaattcttcg gta 293

<210> 2747
<211> 433
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D8

<400> 2747

gcattcagaa acacacctag cgaagcgac tagcaacgac ctaacaacaa tggcttccaa 60
gacattatcc ctcttgcgc ttcttgccct tttgtgagt gcaacaaatg cgttcattat 120
tccacaatgc tcaattgctc cgagtgccat tattccacag ttcttccctc cagttacttc 180
aatgggcttc gaacacccag ctgtgcaagc ctataggcta caacaagcgc ttgcggcgag 240
cgtcttagaa caaccaattg cccaattaca acaacaatcc ttagcacatc taaccataca 300
aaccatcgca acgcagcagc aacaagcact gagccaccta gccgtggtga accctatcgc 360
ctacttgcaa caacagctgc ttgcatccaa cccacttgct ttggcaaacg tagctgcata 420
ccaaccacca aca 433

<210> 2748
<211> 428
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D9

<400> 2748

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gtatgttccc tccttatgct ccttgctctt tctacatgtg ttgctaacgc gacaattttc 120

cctcaatgct cacaagctcc tatagctttc cttcttcccc cataccttcc atcaattata 180

gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgagca 240

agcaacatac ctttatcgcc cttgctgttt caacaatcac cagccctatc tttggtgcag 300

tcattggtac aaaccatcag ggcacaacat ctgcagcaac tcgtgcttcc tgtgatcaac 360

caaattgctc tagcaatacc ttttccctac tcttagcaac aacaatttct ttcattcaac 420

caactgtc 428

<210> 2749

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E1

<400> 2749

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ttgccagcag ctcaggcagg tggagccgca gcaccggtac caggcgatct tcggcttggt 120

cctccagtcc atcctgcagc agcagccgca aagcggccag gtcgcggggc tgttggcggc 180

gcagatagcg cagcaactga cggcgatgtg cggcctgcag cagccgactc catgcccta 240

cgctgctgcc ggcggtgtcc cccactgaag aaactatgtg ctgtagtata gccgctggct 300

agctagctag ttgagtcatt tagcggcgat gattgagtaa ta 342

<210> 2750

<211> 207

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E10

<400> 2750

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aacttggttt gacaaacca acagcgttct accaacaacc catcattggt ggtgccctct 120
tttagattgc ttatgagtta tacttcaata atgaagtttt ttggatgatg tttgtggctt 180
cccagaaata agaaagtaca tttctag 207

<210> 2751

<211> 370

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E11

<400> 2751

tcggaacaat taaggcattg caaaaggccg tgaagccttc cttccccaac tccaagaagg 60
gctggccccc ttgcttcaac gccgccaaga catggatggc gattcctgct ccaaagcgag 120
gagagatcgt taggcaaatt ggtgatgcac tgagagcaaa gctccatcac cttggcaggc 180
ttgtgtcact tgagatgggg aaaattcttc ctgaagggat cgggtgaggtt caggaaatca 240
togacatgtg tgattatgct gtggggctaa gtcgccaact aaatggatcc attataccat 300
ctgaacgacc aaaccatatg atgatggaag tgtggaatcc ccttggagtt gtgggtggta 360
taacggcatt 370

<210> 2752

<211> 322

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E12

<400> 2752

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gcaggctgca gccatggcga agaactaccc gaccgtgagc gcctagtaca gcgaggctgt 120
ggacaaggcc aggcgcattg tccgagccct catagccgag aagagctgag ccccgctcat 180
gctccgactc gctgggactc ccgcggggac gttcgacgtg taagcgagga cggcggtg 240
attcggtagc atgaatgatc agacggaatt ggctcacggc gctaacgcgg agctggacat 300
cgagggtcgt gtgctcgagc cc 322

<210> 2753

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E2

<400> 2753

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ctgtcttcca ctcggttgc cctctgctgg ctacgcagag ccttcactag ccatggccgc 120
gcccctctctg gtaccgagct cgcccatacc gagctccctc agcgtcccgt ccatggtcct 180
cctccactcg ccctggccat gcttgctgc cgcgccacac tgagtttctg gagtctggca 240
cgggtgaactg gggagagaag cagccaagca gctccctcac gccgcggctt cctccttcag 300
ctcggcgctc atctccctct ctgctcggac cgtgccacgc tccgcgcgtc gcagttcgcc 360
cc 362

<210> 2754

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E3

<400> 2754

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atgctgcttg cactgattgc actatgtgtg agcgcaacaa atgcgctcat tattgcacaa 120
tgctcacttg ctactagtgt cattatatca cagattgctg caccagttac ttogatgggc 180
tacgaacacc tagatgtgca ggccaacatg cagcaacgag cgattgcggc gagcgtgtta 240
caacaactga tagtgcaatt gcaacaagaa ttcttgccgc atctaacaat acaagccatg 300
acaacgcaac agatcagcag ttgctaccag cactgatcca gctagccatg gtgaaccctg 360
tctgctactt gcaagag 377

<210> 2755

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E4

<400> 2755

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ctcagatcct tcctgcccg cgcgccgtgc ccgtcgacgc gtcgttcttg ccggccgcgc 120
cccacctacg ccctctccta ctacaggggg atcggatacg ccacaggctg cgcgatggtg 180
ctgtgggtct tcggctaccg ctccctcatt tgggaacccg gcttcgactt cgacgacaca 240
atgctcggct tcatcaaggc ctacaagcgc acctttaatc tcgcttgcat tgaccacaga 300
tgcacaccgg agcatgcggc gaggacctgc acgcttgaaa ccgacgacga ggccatatgc 360
tggggaattg catattgtgt caagggtggt cc 392

<210> 2756

<211> 253

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E5

<400> 2756

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acgtccgaac atatcgacga ccatggatgt ataccggccc gaacgcggcg acgactttac 120
caagactgac accaactgca aggaccaatc catcgaccgc aaggctcgacg tcatcgagga 180
ggacgcgcta gaacaactac tatgtaagtt atgcgaatgt gaacgggaca ctgacaaggc 240
tgtggtaatg ctg 253

<210> 2757

<211> 323

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E6

<400> 2757

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cgtctgatac aactaaggag ctggcaagtc ttgcagtaac attgccatga tgatcctatg 120
tatattgcc cgcactacaa tgaccaagct atcttaagca tggttcaatt gatattctag 180

gtcgcagcatg aactacttcg atgtgagtca cagactagct atctggagtc tgacacggcg 240
aactcaatag agacacaagc acacaactta ctaacaatgt gggctctcgta ttaagcatac 300
tactaatcta actcattgat cag 323

<210> 2758

<211> 315

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E7

<400> 2758

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ctgagatcct tgctgtccgc ccgaccgtgc ccgtcgacgc gtcgttcttg ccagccgagc 120
ctgatctacg ccctcttctc ctacaggggg atcggatacg cgacaggctg cgcgatggag 180
ctgggggtct tcggataccg ctgcctgac tggaaacccg gcttcgactt cgacgacgaa 240
atgctcggct tgatcaaggc ctactacgtg cacctttaat ctcgcttgca ttgaccacag 300
acgcacaccg gagca 315

<210> 2759

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-E8

<400> 2759

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ataagaaaag agataaagaa aaagaaaaga aacataagag acgtcaccat gacacagatg 120
atgtaagctc tgagagggat gataaagacg atgctaagaa gtctcggagg catagcagca 180
gtgatcgcaa gaaatctagg aagcatgcac atggctcaga ttcagatagt gaaaaccggc 240
acaaaagaca taaaaggac cgagatagta gtagaagaaa tggagcacat gagctggaag 300
atggtgaact tggagaggat ggggagatct attagtcttt ctgtttgcta ccgagattca 360
ttcatctcca gtcttggttac acatggattt attgccatct c 401

<210> 2760

<211> 405
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-016-Q1-K1-E9

 <400> 2760

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 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 180
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 240
 aactctgctt cttatttgca acaacaacaa ctaccattca accagctacc tgctgcctac 300
 cccagcaat ttcttccatt caaccaactg gcagcattga actctcctgc ttatttacag 360
 cagcaacaac tactaccatt cagccagcta gcttgtgtga gccct 405

<210> 2761
 <211> 340
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-016-Q1-K1-F1

 <400> 2761

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 agctcctata gcttcccttc tcccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaacccaatt cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt 240
 atcacccttg ttcttccaac aatcatcagc cctattacat cagttacctt tgggtgcattt 300
 attggcacia aacatcaagg cacaacaact acaacaactt 340

<210> 2762
 <211> 382
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-016-Q1-K1-D3

 <400> 2762

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 agtaccaaac gtgccagcgc gacgtcgaca ggcacaacgt ctgcgccatg gaggtgaggc 180
 acagcgtcga acggctggac caggccgacg cctacagccc tggggctggg aggatcacac 240
 gcctcaccag ccacaagttc cccgtcctca acctcgtaca gatgagcgcg gtgcgggtag 300
 acctgtacca ggacgccatc atgtcgccgt tctggaactt caacgccac agcgccatgt 360
 acggcatcag gggcagtgca ag 382

<210> 2763
 <211> 336
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C7

<400> 2763

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 ctgcctatac ccattcttagc acataacatt actaaagctt taatgaatat gttgcacaaa 120
 cggactcadc tttacaagat ctgtatcatg aactattatg agatgctgaa ttgattgact 180
 aagaatttat attagctgac ttcacagttc ttaaagacaa cactgcaaga atgcgtgcc 240
 acctgcattg ctactctcta tgcaactggc atataaattt ggggtgttaac atgtagataa 300
 tatagaaact gcgattaaca ttgcatatgc atgcat 336

<210> 2764
 <211> 438
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C8

<400> 2764

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 acctatctgc aagtgtctgt accgcaacca tttatccaca atgctcacia gctcctatag 120
 ctacctttat taccacatac ctctcaccag cagcgtattc agcatgcgaa aaccagtg 180
 ttcaacccta caggatccaa caggcacacg cagcaagcat cttaccttta tcacccttgt 240

tctctccagac aacacgaacg cctattacag cagtacacct caggtgcatg ctgaggcaca 300
 aaacatcatg gcacaacaac tacagcagct tgtgctacga aaccttgag cctactatca 360
 gcaacagtag catctcacat tcaaccaact ggtgcatg aacactgctg actatttgca 420
 acaacaacta ccattcag 438

<210> 2765

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-D1

<400> 2765

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 gtggcctatc gggatcttag caggagcaat acgaaagctt gaatgaaaag tttgtacaag 120
 catagtcatc tttacgagat cgtgataaga agctcgtgag gtgctgattg attgaaaaag 180
 accttatatt aattgggtgc acagctatag aggacaaact gcaagaaggc gtgccaacct 240
 gcattgaaac tctctctgca gctggcataa aaatttgggt gttaacggga gataagatgg 300
 aaacagcaat taacattgca tatgcatgca gcttggtaaa caatgacacc aaacagttca 360
 tcattagttc agagacagac actattaggg aggctgaaga accgggttaca agtttagtta 420
 g 421

<210> 2766

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-D10

<400> 2766

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 gccacctccg gttcacctgc cacctccggt gcatctccca ccgccggtcc acctgccgcc 120
 gccggtccac ctgccaccgc cgggtccatgt gccgccgccg gttcatctgc ccgccccacc 180
 atgccactac cctactcaac cgcgccgccg tcagcctcat cccagccac acctatgcc 240
 gtgccaacag ccgcatccaa gcccggtgcca gctgcaggga acctgcggcg ttggcagcac 300

cccgatcctg ggccagtgcg tcgagtttct gaggcacag tgcagcccga cggcgacgcc 360
 ctactgctcg cctcagtgcc agtcgttgcg gcagcagtg tgccagcagc tcangcangt 420
 ggagccgc 428

<210> 2767

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-D11

<400> 2767

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 agtagttgga ggagatatgc agtttgcact tgcattggac acgaactcag gtcctcacca 120
 gataagatct tgtgaggggtg atgggattga caggttggaa aaattaagta ttggggggcag 180
 aaagcaggag aaagctttga gaaatagggtg ctttgggtggt agagttgctg caactacaca 240
 atgtattctt acctcagatg cttgtcctga aactcttcat tctcaaacac agtcctctag 300
 gaaaaattat gctgatgcaa accgtgtatc tgctatcatt ttggggcgga ggacctggat 360
 ctaagttttt tcctttgaca agcccaaaag ctacgcctgc tgtacctgtt ggaggatggt 420
 ccaggct 427

<210> 2768

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-D12

<400> 2768

cccacgcgtc cggcaacgag ccatggcctc cggtgggccg aaacccaaac tggcctacga 60
 tcattcttgta cgtgagggac gtggagaagg ccgcctcctt ctacgacgcc gccttcggct 120
 acaccgtccg ccgcctcgac cagtcccgca agtgggcgga gctggagagc gggggcgacga 180
 ccatcgcgtt cagcccgctg caccagcggg agacggacga gctgtcgggg gcggtgcagc 240
 tgccggactc gtgggcgcc gggaggggct ccgtggaggt ctgcttcgcc tacggggacg 300

tcgacgcggc gtacaagcgc gccgtggaca gcggggcggg gcccgtagc gcgccggagg 360
 acaagccctg gggccagaag tncggttcg tgcgggacat ggacggcaac atcgtgcgca 420
 tcgcgagcta 430

<210> 2769

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-D2

<400> 2769

tccacatgtt ctgtgcgcgt aggccaggct tectgtgtc aacattgacg gccctcggca 60
 gcctaggcct cgacatcaac caggcgggtca tcagctgctt caatggcttt gcaatggacg 120
 tgttccgagc tgatcagtgc gcggatggc ctggaatggg gcctgaagaa attaaggccg 180
 tgctgatgca caccgtcggc ctccacaacg caatgtagcc ggtccgaaaa ggggccaccg 240
 ccaggatgac gacgatcctn ctnccttcta ctaagggtt cggttcggaa gcggcataag 300
 attaagctgt ggtggccatt gggtatctgg ggcaagtgat gaatcntaag atgatgaggc 360
 tcgccatctc gggcatgacg catgagtgat gatgtaacta tgggattctt tcatntcttc 420
 tcattagcct aatgtcg 437

<210> 2770

<211> 432

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-D3

<400> 2770

agaaccttag gcctgatccg tcgggaggaa tttcttttgg aatgggtccc ttcgaaacgt 60
 tggttgcca agaaaccgag gatccaggat gagtttcctg ttcgggaagc ggaaaacgcc 120
 cgccgagctg ttaacagaaa acaggagaat gctggatcga tccatcaagg aaattgagcg 180
 agagaggcaa ggatcgcagg cccaggagaa aagctcatca ctgagatcaa gagaacagct 240
 acagaaggcc agatgggagc tgtcatagta atggccaaag accttattcg taccggcat 300

cagataacaa agttctacca actcanatct cagcttccag gagtttctct tagagttcag 360
acactaaaat caactcaagc tatgggtgat gccatgaacg gcgttacaaa ggcaatggct 420
canatgaaca gg 432

<210> 2771

<211> 316

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-D4

<400> 2771

tctagatcgc cgtgggtcccc caattgagta acctttgtcc ggaatattac ccgttgccctg 60
gctgggttagt taagccatta accgccaata atggattatt aaggggtaac gcttaaccat 120
gggtggcatg gtaagtgtaa gcaatgacct gatggaccaa tggaattgaa aagttaaaca 180
aaaaaagcaa agattagaag gaccacaaaa aaaaagctga tcaactgagat caacagaaca 240
actacagtta gacaaacggg acctgtccaa ggtactggac actgacctta ttcatacgcg 300
gtaataagat aacaaa 316

<210> 2772

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-D5

<400> 2772

cccggcggtta ggctcggcac aacaacatcc aaacaagcag gactccgtct ctgtcaggag 60
agattgggggt atgggggtgga ggtggagggt cggcgcagga catcacgacg acggagccac 120
cacagcgtct gcacagcctc tccgttcgaa ctgggtttgc cgtcgactcc atcgagttca 180
cgtatactga tagaggtggc cagaggcgca ctgctgggcg atgggggtgga cttggcgggca 240
accttcgaac gatcgatctt ggcgacgccg aggttgtcag ggaggtctca ggaacatacg 300
gcatgtttga aggcgccacc acgctgacct agatcagaat tctcaccagc agcagaacct 360
gtgggccatg ggggatcgag gacgggacac gtgtctgcat caccgcgccg atcggcagca 420
gcatcgtggg g 431

<210> 2773
 <211> 437
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-035-Q1-K1-D6

 <400> 2773

attgatacga actagcaaca tacatagtga agtacactag caacatctta gcaccaatgg 60
 cagccaagat ttttgccatc cttgccctcc ttgctctttc agcaagcggt gctaccgcga 120
 ctattattcc acaatgctca caacaatacc tctctccggt gacagccgcg agatttgaat 180
 acccaactat acaatcctac aggctacaag aggccatcgc agcaagcatc ttacggtcgt 240
 tagcattgac cgtccaacaa ccatatgcc tatcgcaaca accatcctta atgaatctat 300
 atctgcaaag aatcgagca caacaactac aacaacagtt gttccaaca atcaatcaag 360
 tagttgcagc gaaccttgct gctgacctnc agcaacaaca attctttcat tcaatcaact 420
 agctggggtg aaccctg 437

<210> 2774
 <211> 435
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-035-Q1-K1-D7

 <400> 2774

gaggatcctg gtcgcgggaa cgggtggtgg actacgctgt caaagtgcgc gtgaggccgg 60
 acgggagggg cgtggagacg gccaacgtga agatgtccat gaatccattc tgcgagatcg 120
 ccgttgagga ggcgctgcgg ctccgggagg ccggcgtcgc cgctgaggtc gtcgacgcca 180
 ccgtatgcc tgcccagtc gtcgacacgc tccgaccgc actcgtcatg ggcgccgatc 240
 gcgccgtcca cgtgctccac gaccgcgacc ctgcgcggcc cctactacct atcgccgttg 300
 ccaagatcct tcgcgcgctc gcgctccagg agaagcccg cctcgtcatc ctcggaagc 360
 aggcaataga tgatgattgc aaccaaactg gacacatgtt agctggattg ctcaagtggc 420
 tcacaagaac ctttg 435

<210> 2775
 <211> 382
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-035-Q1-K1-D8

<400> 2775

gtaaagggtc aaaaaaggca tatgtgcatg aatacaacat gtagtgcgaa catataggcc 60
 atgtgcttac tccactctct cgtcacggcc tcacactgca gaggcttgga cggacgggat 120
 ggacatggcg cggtagcagt catgctaccg gcaactggatc gccgggcagg aggcaggcct 180
 cgccgagctc gagggggcgt cggccaatgc cgccgcgggc cgggcaacgg acgccgagct 240
 ggggaccgtg gtggagcggg gcatgctcgg ctaccaggac tacgccaccc gcaggcgcg 300
 gctgtcgagg gagggacggcg tcgccttctt cgccccgccc tgggtgcaccg ncttcgagaa 360
 ctccgtgctc tggctcgggg ct 382

<210> 2776
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-D9

<400> 2776

caacaagcaa catagaaagt ggaatacagt agcaacaata gagcaacaat ggcggccagg 60
 atgttttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccattttt 120
 cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
 gcttcagttt gtgaaaaccc agcccttcaa ccctacaggc tccaacaagc aatcgcaaca 240
 agcaacttac ctttatcacc cctgttcttt caacaatcgc cagccctatc tttgggtgcag 300
 tcattgggtac aaaccatcag ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc 360
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
 caactgtcta cactg 435

<210> 2777
 <211> 442
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-E1

<400> 2777

catcaatcat cattcatctt agtagtatag gcaccaaadc aaatctgcaa catcaattgt 60
ctaactccaa aaaccatgaa gctgggtgctt gtgggttcttg ctttcattgc tttagtatca 120
agtgtttctt gtacacagac aggcggctgc agctgtgggc aacaacaaag ccatgagcag 180
caacatcatc cacaacaaca tcatccacaa aaacaacaac atcaaccacc accacaacat 240
caccagcagc agcaacacca acaacaacaa gttcacatgc aaccacaaaa acatcagcaa 300
caacaagaag ttcatgttca acaacaacaa caacaaccgc agcaccaaca acaacaacaa 360
caacaacagc accaacaaca acatcaatgt gaaggccaac aacaacatca ccaacaatca 420
caaggccatg tgcaacaaca cg 442

<210> 2778

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C6

<400> 2778

ttccattcaa ccaactggca gcattgaact ctcttgctta tttacagcag caacgacggc 60
taccattcag ccagctagct ggtgtgagcc ctgctacctt cttgacacaa ccacagttgt 120
tgccgttcta ccagcagcgt gcgcctaacg ctggcaccct cttacaactg caacaattgc 180
tgccattcaa ccaacttgct ttgacaaacc tagcagtgtt ctaccaacaa cccatcattg 240
gtgggtgccct ctttttagatt tcttatgagt tatagttcaa taataaagtt ttttgtctga 300
tgtttgtggc ttcccagaaa taagaaagta catttctag 339

<210> 2779

<211> 95

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A9

<400> 2779

cttttagatt tcttatgagt tatagttcaa taataaagtt ttttgtctga tgtttggtggc 60
 ttcccagaaa taagagagta catttctaga ttctt 95

<210> 2780

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-B1

<400> 2780

gacgaactag caacatagaa agcacaattt tgtaccaaca atggcagcca aaatatttgg 60
 gtgccttatg ctcttggggc tttctgcaag tgggtgtacc ggaaccattt ttccacaatg 120
 gttacaagct tctatagctt tccttctttc cccatacctt ttaacaacgg gggcttcaat 180
 gggggaaaac ccaattggtc aacccttaca ggtcccacca ggcacggaa ccaggcattc 240
 taccattata acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg 300
 tccatttggg ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc 360
 ttgtgtcata ctctcagcaa catcagtttc ttccattcaa ccaactggct gcattgaact 420
 ctgtgtgetta ttgcaacaa 440

<210> 2781

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-B11

<400> 2781

cagctagcag catacaaagc aactagtgt accagcactg gctgccgggc catattgcct 60
 gcatatgtc ctcggtctaa tctgcaagtg ctgctacagc gaccatgttc ccgcagtgca 120
 tcgcaagctc ctatagctgc cttctgtgcc ccgtacctct caccagcgga gtcgttatct 180
 atgtgaaaac ccagttgttg aaccctacag gatccatcac gcggtcacag ctgtgcatat 240
 tacctttatc acccttggtg ctccgacaat catcagtcct attacatcag ttgcctttgg 300
 tgcattgatt ggctcatatc atcaaggcac agcaactacg acatcttgtg ctagcaaacc 360
 ttgtgtccta ctgtcaagaa 380

<210> 2782
 <211> 321
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-035-Q1-K1-B2

 <400> 2782

 caggatataa aggcccatta tggaccaatc atggccagct aaataatttg gcctcttagg 60
 gttccttgtc cttcttgcag ttctgtaac ggcaaccatt ttccccatt gctaacaagc 120
 tccaaaagct cccatagttc ccctgtcctt ttaataactg tgaccttcgg tttgtgaaac 180
 cccagttttc aacccttccg gacacctaca gctatcgcaa gttgcatctt aacgtttata 240
 accattgtca tcctacaatc atcaacccta ttacagccta ttactttggt gcacttattg 300
 gcacaaaaca tcacggcaca t 321

<210> 2783
 <211> 301
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-035-Q1-K1-B3

 <400> 2783

 gtccgcgaat tccatatgca ggacaagggt gcagggcggc cttccaggaa gttctggggg 60
 ggggtgtcca ggggtgaagg aaacgtgaac cttcaaccg ggcttgcaag gaggggaagt 120
 tcatttcatt tggggccgga ttggtttaat ctgaatctga tggagcaatt tggaatgctg 180
 aactattgtg cctgatccaa atgaataagg tgtaatgact cgtcttttca attactgaaa 240
 ctgaacatgt ttgaatttat ctggtcactt gtatggtaaa atagcagcgt tgtcaattgt 300
 c 301

<210> 2784
 <211> 380
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-035-Q1-K1-B4

 <400> 2784

agaaagcaca atagtgtacc aacaatggct gccaaaatat ttgtccttct tatgcttcgt 60
 gggatttctg caagtgtctg taccgggaac atttttccgc aatgggtaca agcttctatt 120
 gctttccttt tttccccgga ccttttaaca acgggggtctt cgggatgtga aaaccaatt 180
 cttcaaactt acaggggtccc acagggaatc gcagctggca tcttaacttt atcacccttg 240
 gtccttccac aatcatcagc cctattacag cagttacctt tgggtgcattt attggcacia 300
 aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
 caacagcagt ttcttccatt 380

<210> 2785

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-B5

<400> 2785

ggggcattga actctgctac ttatttgtaa caacaactgc taccattcaa ccaggtagct 60
 gtagtctacc agcagcaatt gcttccatta aagcaactag caatattgaa ctatcctgct 120
 tatctacagg agctacaact actaccattc aaccagctag ctcgatgtga gccctgcttc 180
 ctatctgaca caaccacagt agttggcggt ctaccagcac gttgcgccta tacgctgcac 240
 cctcttacia gtggaacaat tgctgccatt caaccaactc gctctgtcac acccattcaa 300
 cgttttacca tcatcccatc attggctcggc gcactactat tacattcagc tatgatgtat 360
 agagcaatgc tacagtcttg aatctgatgc atgtggcttc ccagtaatag cacgggtgat 420
 ttatagatgg taaa 434

<210> 2786

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-B6

<400> 2786

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 tggttcaaca actcgcaaga gctaactgac tttaaggagg ggaggcatgc tagcttcgag 120

tatgggaggt atgggaaccc gaccacggag gcattagaga agaagatgag cgactggag 180
aaagcagagt ccaccgtggt tgtggcgctca gggatgtatg cagctgtggc tatgctcagc 240
gcacttgtcc ctgctggtgg gcacattgtg accaccacgg attgctaccg caagacaagg 300
atttacctgg aaaatgagct ccctaagagg ggaatttoga tgactgtcat taggcctgct 360
gacatggatg ctctccaaaa tgcgttggac aacaataatg tatctctntt cttcacggag 420
actcctacaa atccatt 437

<210> 2787

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-B7

<400> 2787

attttgagca ttcagaaaca caccaagcga agcgactag caacgaccta acaacaatgg 60
ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaag agcagctgct tgcacccaac ccacttgctc 420
tggcgaacgt agttgca 437

<210> 2788

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C1

<400> 2788

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ttgggtgagg ttacccttcc tgaagaggcc aatccttctt tctataagca agtatggcgc 120
atgcacacca tactgatctt cagagactat atgattaatg tcccacagaa ccttgaagct 180

tgccagaaga tagtctatTT cagcaatcca ttgtttatga acataccaac gtcaaccag 240
 gttgacaaga tgatgacttc cagtgtcacg actccttaat actatgatga ggtgttttac 300
 actacggacc atctctataa agagaatgca gctggcatct caatattata ctatctaaaa 360
 catatttacc cagat 375

<210> 2789

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C12

<400> 2789

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 cggcagctgc ttccattcaa ccaactgact gtgtcgaaact ctgctgcgta cctacaacag 120
 cgacaacagt tacttaatcc actagcagtg cctaaccat tggtcactgc cttcctacag 180
 cagcaacaat tgctaccata cagccagttc tctttgatga accctgcctt gtcgtggcag 240
 caaccatcg ttggaggtgc catcttttag attacatatg agatgtaatc gataatggtg 300
 cctcatacc ggcattgtgtt tcctagaaat aatcaatata ttgattgaca tttatctcg 359

<210> 2790

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-C2

<400> 2790

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 ctgctaatac tcttgggcct ttctgcaagt cctgttacgg caaccatttt ccaacaatgc 120
 taacaagctc ctatagcttc ccttcttccc ccgtaccttt caccaacggg gtcttcggat 180
 gtgaaacca ttcttaacct cagaccacag gcatccactg catctacctt atcacccttg 240
 ttcctccaac aatcatcagc cctattacag cagttacctt tgtgcattta ttggcacaaa 300
 acatcanggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360

aacagcaagt tcttccattc aaccaactag ctgcatngaa ctctgctttc tatttgcaac 420
aaca 425

<210> 2791

<211> 404

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-C4

<400> 2791

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ccgccgccat gaagcgcaac ccccgcgta cgagctcccg ccggaagtgc cgcaaggcgc 120
acttcacggc cccgtctctc gtcgccgcg tgctcatgtc cgcggcgcta tcgacggagc 180
tccgccacaa gtacaatgtg cgttccatcc cgatccgcaa ggacgacgag gtgcaggtcg 240
tgccgggcac ctacaagggc cgtgagggca aagtgggtgca ggtgtaccgn cgtcgtctggg 300
tcateccagt tgagcggatc acccgcgaga aggtgaacgg ctccaccgtg aacgtgggca 360
ttcacccctc caaggtcatg gttacaaagc tgaagcttga caag 404

<210> 2792

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-C5

<400> 2792

cagagttggt gtgttgctct tccgcaattt gctggcaaag ggtgcatttg ctggccagat 60
gatcgatctt ggattgccac aaatgttaca aaacttgaaa gctcaagcat ggactgatga 120
ggatctgtta gatgctctga atcaactaga ggtgggactc aaagaaaacc ttaagaagtt 180
gagttccttt gataagtaca aacagcaagt tcttcttggt catctggact ggtctccaat 240
gcacaaagat ccaagtttct ggcgtgagaa cattaacaat tttgaagaaa atgatttcca 300
gattctgcga gttctcatga caatcattga cacatcaagt gacaccaccg ctcttgccgt 360
ggcctgctac gacctctcac aattccttca gtaccatcca tctggccgaa tcgtgggtggc 420
agacc 425

<210> 2793
 <211> 372
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-035-Q1-K1-A8

 <400> 2793

tgagaagttc tctgttcact ctttgggact gccgtctctt ctctctgatc caagtgcgaa 60
 gacacctgaa gaagctcttg tgcatactct tggggaagcc aagagaacaa ccccgcccat 120
 tctatacata cctcagttcc atctttggtg ggatacggca cacgaacaac taagggctgt 180
 gttgttgact ctgttgaacg atttgccctc caaccttcca gttttattgc ttggaacatc 240
 atcagtgggt tttactgacc ttgaagaaga gtgtgcttcc atattctctt ctcgcaatgt 300
 gtatcaagcg gatcaaccaa gttttgacga tagattgagg tacttcagta tattgcttga 360
 gtcattgctc tc 372

<210> 2794
 <211> 394
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-H10

 <400> 2794

cgaccatttt cccgcaatgc tcacaagctc ctatagcttc ccttcttccc cggtaccgct 60
 caccagcggg gtcttcggta tgtgaaaacc caattcttca accctacagg atccaacagg 120
 caatcgcagc tggcatctta cctttatcac ccttgcttcc ccaacaatca tcagccctat 180
 tacagcagtt acctttggtg catttattgg cacaaaacat cagggcacia caactacaac 240
 aacttggtgt agcaaacctt gctgcctact ctgagcaaca gcagtttctt ccattcaacc 300
 aactagctgc attgaactct gcttcttatt tgcaacaaca acaactacca ttcagccagc 360
 tacctgttgc ctacccccaa caatttcttg catt 394

<210> 2795
 <211> 420
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-034-Q1-K1-H11

<400> 2795

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cgagcgccac ctgcacgcat acaagcggcg gctgcggctg ccagccaccg ccgccggttc 120
atctaccgcc gccggtgcat ctgccacctc cggttcacct gccacctcgc gtgcatctcc 180
caccgccggt ccacctgccg ccgccggtcc acctgccacc gccgggtccat gtgccgccgc 240
cggttcatct gccgccgnaa ccattgccact acctactca accgccccgg cctcagcctc 300
atccccagcc acacccatgc ccgtgccaac agccgcattc aagcccgctg cagctgcagg 360
gaacctgcgg cgttggcagc accccgatcc tgggccagtg cgtcgagtcc ctgaagcatc 420

<210> 2796
<211> 388
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H12

<400> 2796

acacgcatca catgtagatg tagctagctt agctatgctc gcgtaaaaac cctagcggca 60
gtcacacagc aagttgcatg tgtctcgggg gcaacaagca ggccggccgag gcagcaggcc 120
gcatggagaa ccaccggcgc cattcgggct ctccggcgag cagcaggcgg ccggcggtgc 180
actacctct cgccctgggt gccgactacc tcaggtagct cttcatgaag ccggcgccggc 240
tcctgcacaa ggtggcgccg agaacgctcg cgctcgcca ccgccacggc ctgccgcagc 300
gcccggcgag gaaccacgac cagtggcagt ggcctcatcg cgcgctggcg gagcacgagt 360
tctcgtgcgc cgacagcccc agccccgc 388

<210> 2797
<211> 405
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H2

<400> 2797

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tgcaagccta caggctacaa caagcgcttg cggcgagcgt cttacaacaa ccaattaacc 180
aattgcaaca acaatccttg gcacatctaa ccatacaaac catcgcaaca caacagcaac 240
aacagttcct accagcactg agccaactag atgtggtgaa ccctgtcgcc tacttgcaac 300
agcaggtgct tgcattccaa ccacttgctc tggcaaacgt agctgcatac caacaacaac 360
aacaattgca acagtttctg ccagcgctca gtcaactagc catgg 405

<210> 2798

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H3

<400> 2798

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gggaagctgc caggggtgcac tgccaatgtg ccctgcgagt acagcgctcat gtacggtgat 120
ggtagctcaa cgactgggtt cttcatcacc gatgcgctgc agtttgatca ggtgactggg 180
gatggacaga cacagcctgg caatgctacc atcacattct ggtgtggtgc tcagcaaggt 240
ggggatttgg gcaactcata ccaagcgctt gatggaattc ttggttgtgg tcacgcagat 300
acgtcaatgt tatcacagct agctgctgct ggtaaagcga agaagatatt tgctcattgc 360
ttggatacca taaaggtgg tggaatcttt gctattggaa atgttggtc 409

<210> 2799

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H5

<400> 2799

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gacaacaact accattcagc cagctacctg ctgcctaccc ccagcaattt cttccattca 120
accaactggc agcattgaac tctcctgctt atttacagca gcaacaacta ctaccattca 180

gccagctagc tgggtgtgagc cctgctacct tcttgataca accacagttg ttgccgttct 240
accagcacgc tgcgcctaac gctggcaccc tcttacaact gcaacaattg ctgccattca 300
accaacttgc tttgacaaac ccagcagcgt tctaccaaca acccatcatt ggtgggtgcc 360
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<210> 2800

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H7

<400> 2800

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ataggtcctt gtgcaagtgt tgctactgag tgccagtttc agcaccaatg ctcatatgct 120
ctctatagca tacgcattct tatgcgcata cctcgatacc aatgcgcgta cttcaatgat 180
aagagcacgt tagtgtgcaa accctacagg attgcactgg taatatcacc aagcatcgta 240
ccattaagac ccgtgttctt ccaactaaat taaaccctat gacagcaggt accgatggat 300
cattatacgc cactaaacat ttgtgcacac aatttacgac ggcttgtgct agcaaaccct 360
gctgcatact ttgatcaaca tcaa 384

<210> 2801

<211> 153

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H9

<400> 2801

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gaaaaccctt agctcttcga accatatagt gcttcaacaa agcaaatcgc tagcaagcaa 120
acataccctt tatcagccct ttgttgcttc aac 153

<210> 2802

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A10

<400> 2802

cctacatacc tgcaacaaca attgttgcaa cagattgtac cagctctgac tcaactagct 60
gtggcaaacc ctgttgcta cttgcaacag ctgcttccat tcaaccaact gactctgtcg 120
aactctgtcg cgtacctaca acagcgacaa cagttactta atccattggg agtggctaac 180
ccattggtcg ccgccttcc acagcagcaa caattgctgc catacaacca gttctctttg 240
atgaatcctg tcttgctgag gcagcaaccc atcggtggag gtgccatctt ttagattaca 300
tatgagatgt actcgataat ggtgccctca taccgacgtg tgtttcctag aaataatcaa 360
tatattgatt gagatttatc tcgatt 386

<210> 2803

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A11

<400> 2803

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agatcctagg aagaaatgga gctctctgc aagctcttca cggccgtcct cctcgtcatg 120
ctgctgctgc tgtccgcaga ggtcgggccg gtggcggtgg cggaggcgcg gacgtgccag 180
tcgcagagcc acaggttccg gggcccctgc ctccgccggt ccaactgcgc caacgtctgc 240
aggaccgagg ggttccccgg cggcaggtgc cgcggcttcc gccgccgctg cttctgcacc 300
acgcactgcc actgattcgc tcgccagcg gccggctggc gtcgccgctg atcgcgtcgc 360
gaccagtcca tggctccatg catgaataac aagggtgt 398

<210> 2804

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A2

<400> 2804

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actgctgttaa tagggctgac ggttggttga ggaacaatta ccattcagcc agctagttgc 120
 tgcctacccc cagcaatttc ttccattcaa ccaactagca gcattgaact ctgctgctta 180
 tttacagcag caacaactac taccattcag ccagctagct gatgtgagcc ctgctgcctt 240
 cttgacacaa caacagttgt tgccgttcta cctgcacgct atgcctaacy ctggcacccct 300
 cttacaactg caacaattgc tgccattcaa ccaacttget ttgacaaacc caacagtgtt 360
 ctaccaacaa cccatcattg gtggtgccct cttttagatt gcttatgagt tatagttcaa 420
 taatgaagtt ttttggatga t 441

<210> 2805

<211> 449

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-035-Q1-K1-A3

<400> 2805

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 agggcacttg ccaccagtca tgccattggg taccatgaac ccatgcatgc agtactgcat 180
 gatgcaacag gggcttgcca gcttgatggc gtgtccgtcc ctgatgctgc agcaactgtt 240
 ggccttaccg cttcagacga tgccagtgat gatgccacag atgatgacgc ctaacatgat 300
 gtcaccattg atgatgccga gcatgatgtc accaatggtc ttgccgagca tgatgtcgca 360
 natgatgatg ccacaatgtc actgcgacgc cgtctcgagc attatgctgc aacagcagtt 420
 accattcatg ttcaacccaa tggccatga 449

<210> 2806

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A4

<400> 2806

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 ggagaggcta gtaggtggtc ctcgaacgaa gatgttggcg gtgttcagcg ggcaggtggt 120

ggaggtgccg gcggagctgg tggcggcggg cagccggacg ccgtcgcca agacgaaggc 180
 gtcgcagctc gtggggcgct tcttgccgc gtccgagccg gacgtgtccg tgcagctcgg 240
 cgaccacggc cacctcgctt actcccacac caaccaggcg ctctccgcc ccaggacccc 300
 gagggcaggg tgccgtctt ctgggggatc accgccgacg gctgcgtcgc cttctccgac 360
 gacatcgaca tgctcaaagg ctcatgc 387

<210> 2807

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A5

<400> 2807

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 tgccctcctt gccctccttg ctctttcagc aagcgctgct acctcgactt ttattccaca 120
 atgctcacia caatacctct ctccggtgac agccgcggga tttcaatacc caactat'aca 180
 atcctacatg gtacaagagg ccatccaagc aagcatctta cggtcattag cattaaccct 240
 ccaacaacca tatgctctat tgcaacagcc atccttagtg catctgtatc tccaaagaat 300
 cgcggcacia caactacaac aacagttgct accaacaatc aatcaagtag ttgcagcgaa 360
 ccttgctgct tacctccagc aacaacagtt tcttccattc aatcaactag ctggggtgaa 420
 ccctgctatc tacttgca 438

<210> 2808

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-035-Q1-K1-A6

<400> 2808

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 cagcgaatgc gatgccggga accaccggtc gtgcgtcctc tctcctcgtg cgcttcgccc 120
 gtctccacag ttgggtgcagc ttgcgacgca acttggattc tctcctctgg ttgcaacaag 180
 gcagtccagt gaatgagacg gatggcccca gctgtgcctg taactgatgc atgatggagc 240

tgagcctgtg ggtgggaatc tcttctctgc tggtagccac tcgcctagct ccaaatacac 300
acacacactc tctgtctctc tctctctctc tctctctgtc tatctctc 348

<210> 2809
<211> 436
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-035-Q1-K1-A7

<400> 2809

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tccttccttg cgcttcttgc gcttttttgcg agcgcaacaa atgcgttcat tattccacaa 120
tgctcacttg ctccaagttc cattattaca cagttcctcc caccagttac ttcaatgggc 180
ttcgaacacc cagctgtgca agcctatagg ctacaacaag caattgcggc gagcgtctta 240
caacaaccaa tttcccagtt gcaacaacaa tccttggcac atctaacaat acaaaccatc 300
gcaacgcaac agcaacaaca attcctacca gcaactgagcc acctagccat ggtgaaccct 360
gccgcctact tgcaacagca gttgcttgca tcaaaccac ttgctctggc anacgtagtt 420
gcaaaccagc cacaac 436

<210> 2810
<211> 446
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-H1

<400> 2810

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tcgtgctgga cctgctgaga atgtgcgtgg taaattgtct ggagttgaag aggaggatgt 120
aatggctggt tttgtacttt caagtgttgc taatcctggt ggtgccgtta gtgaattcat 180
tgctcagttg cagatttttag agttgcttga caatgctatt ttcactgccg gctacaaagc 240
tgtgttgcat attcactctg ttgtcgaaga gtgtgagatt gttgagctca tagaggaaat 300
tggcatgaag aaaaagaaag aagaagatcc aaagaagaaa aagccaaaga ggaagcctct 360

ttttgtgaag aacggtgcaa ttgttgtttg ccgcattcag gtgaataact tgatatgcat 420
agagaagttc tctgatttcc ctcagc 446

<210> 2811
<211> 119
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C1

<400> 2811

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aaaaggtaaa aaataaaaaa ataccagaaa aaaggagaaa gaaattcggg gtcctatatt 119

<210> 2812
<211> 414
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C10

<400> 2812

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tgctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt attggcacaa 120
aacatcaggg cacaacatct acaacaactt gtgctagcaa accttgctgc ctactctcag 180
caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc ttatttgcaa 240
catcatcaac taccattcag ccagctacct gttgcctacc cccaacaatt tcttccattc 300
aaccaactgg cagcattgaa ctctcctgct tatttacagc agcaacaact actaccattc 360
atccagctag ctggtgtgag ccctgctacc ttcttgacac aaccacagtt gttg 414

<210> 2813
<211> 391
<212> DNA
<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-C12

<400> 2813

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gatggtcacg gttctcgtcg tgtgcctggc tctgtcagct gccagcgcc ctgcaatgca 120
 gatgccctgc ccttgcgcgg tgctgcaggg cttgtacggc gctggcgccg gcctgacgac 180
 gatgatgggc gccggcgggc tgtacccta cgcgagtagc ctgaggcagc cgcagtgcag 240
 cccgctggcg gcggcgccct actacgcncg gtgtgggcag tcgagcgcca tgttccagcc 300
 gctccggcaa cagtgtgcc agcagcagat gaggatgatg gacgtgcatt ccgtcgcgca 360
 tcaactgcag atgatgatgc agcttgagcg t 391

<210> 2814

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C2

<400> 2814

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 actcaaaaaa ccatgaagct ggtgcttgtg gttcttgctt tcattgcttt agtatcaagt 120
 gtttcttgta cacagacagg cggctgcagc tgtggtcaac aacaaagcca tgagcagcaa 180
 catcatccac aacaacatca tccacaaaaa caacaacatc aaccaccacc acaacatcac 240
 cagcagcagc aacaccaacc tcaacaaggt cacatgcaac cacaaaaaca tcagcaacaa 300
 caagaagttc atgttcaaca acaactacaa caaccgcagc accaccacca acaacaacta 360
 ctacagcacc aacaacaaca tcaatgtgaa ggccaacaac aacatcatca acaatcacia 420
 ggccatgttc aacaactcga aca 443

<210> 2815

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C3

<400> 2815

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 caagatattt tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat 120
 tttccctcaa tgctcacaag ctcctatagc ttcccttctt ccccatatac ttccatcaat 180

tatagcttca gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc 240
agcaagcaac atacctttat cgccttgggt gtttcaacaa tcaccagccc tatctttggg 300
gcagtcattg gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat 360
caaccaagta gctctggcaa acctttctcc ctactctcag caacaacaat ttc 413

<210> 2816

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-C4

<400> 2816

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tgctcctta tgctccttgg tctttctgca agtgcctgta cggcgaccat tttcccgcaa 120
tgctcgcaag ctctatagc ttccttctt ccccggtacc tctcaccagc ggtgtcttcg 180
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ttacctttat cacccttgggt ccttcaacaa tcacagccc tattacaaca gttacctttg 300
gtgcatntat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgect actctcagca acagcagttt cttccattca accaactagg ttcatgaac 420
tctg 424

<210> 2817

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C5

<400> 2817

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cgactccaag gtggtagtcc aactaagtgc gacgctcaag ggtgcgccgt cctgtatgtg 120
gttggagtga acatgacgta tgggtgccat aggtgagcgg attacatact ttagcactta 180
ctgcttggtt ataagatgcy tcacatctta attcgtcagc tggctcggtt acccaatcgt 240

gatcctgaca tcgtcgtatc atatcaggaa cgctgtcaca tcgtcttgcg actaagggtca 300
 tgttggtcag ttgctccagc gtcgagactg tggaaatga 339

<210> 2818

<211> 216

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C6

<400> 2818

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 atgatgctaa gttgagagtc caactaagcg cgatggcagt gtgtgttggt ctgtaaaggt 120
 gtaggaacta gagatggctg cacacatgct ggattacata actaatcact aattgcttgg 180
 ttctaggaag cgaaatgatt taaaacaaca tcatgt 216

<210> 2819

<211> 296

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C7

<400> 2819

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 ctgttgctgg tcacaggctc gggggagagt caagttcgct tgctagcgct cgtgcgttgt 180
 ctggagctgc tgcttaccag cgttttctga atgcatctgc aaatgtggat catgcttcag 240
 gcactaaaat cgaatatagt tctgatgatg ttcctcgagg ttttgttcat gaaact 296

<210> 2820

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C8

<400> 2820

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gctccttggt ctttctgcaa gtgttgctac cgcaaccatt ttaccacaat gtcacaagc 120
tccatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaaa 180
cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccattatc 240
acccttggtc ctgcaacaac cgtcagccct attacagcaa ttacctttgg tccatttggt 300
ggcacaaaa acatcaaggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 360
ctctcagcaa catcaagttc ttccattcaa ccaactggct gcattgaact ctgctgctta 420
tttgcaacaa cc 432

<210> 2821
<211> 321
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-C9

<400> 2821

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tgcttatgct ccttggctctt tctgcaagtgt ctgctacggc gaccattttc ccacaatgct 120
cacaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctatagga tccaacaggc aatcgcaact ggcatcttac 240
ctttatcaac cttggctcctt caacaatcat caaccctatt acagcaggta cctttgggtgc 300
atttattggc acaaaacatt a 321

<210> 2822
<211> 386
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D1

<400> 2822

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tgcttcctta tgctccttgg tctttctgca agtgctgcta ccgcaaccat tttcccacaa 120
tgctcacaag ctccatagc ttcctttctt ccccatacc tctcaccagc ggtgtcttca 180
gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc agcaggcatc 240

ttacctttat cacccttgtt cctccaacaa ccgtcagccc tattacagca gttacctttg 300
 gtgcatttgt tggcacaaaa catcaaggca caacaactac aacaacttgt gctaagaaac 360
 cttgctgcct actctcagca acagca 386

<210> 2823

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D10

<400> 2823

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 gcggcagcag tgtggccagc agctcaggca ggtggagccg cagcaccggt accaggcgat 120
 cttcggcttg gtcctccagt ccctcctgca gcagcagccg caaagcggcc aggtcgcggg 180
 gctgttggcg gcgcagatag cgcagcaact gacggcgatg tgcggcctgc agcagccgac 240
 tccatgcccc tacgtgctg cggcggtgt ccccaactga agaaactatg tgctgtagta 300
 tagccgctgg ctagctagct agttgagtca tttagcggcg atgattgagt aataatgtgt 360
 cacgcacac catgggtggc agtgtcagtg tgagcaaatg acctgatg 408

<210> 2824

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D11

<400> 2824

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 tccctcaatg ctcaagct cctatagctt cccttcttcc ccatacctt ccatcaatta 180
 tagcttcagt atgtgaaaac ccagctcttc aaccatatag gcttcaacaa gcaatcgag 240
 caagcaacat acctttatcg cccttggtgt ttcaacaatc accagcccta tctttgggtg 300
 agtcattggg acaaaccatc agggcacaaac agctgcagca actcgtgcta cctgtgatca 360
 accaagtagc tctggcaaac ctttctccct actctcagca acaacaattt cttccattc 419

<210> 2825
 <211> 406
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D12

<400> 2825

gctcctgggt ctttctgcaa gtgctggcta cggcgaccat tttcccgcaa tgctcgcaag 60
 cgcctatagc ttcccttggt ccccggtacc tctcaccagc ggtgtcttcg gtatgtgaaa 120
 acccaattct tcaaccctac aggatccaac aggcaatcac agctggcatc ttacctttat 180
 cacccttggt cctgcaacaa tcatcagccc tattacatca gttacctttg gtgcatttat 240
 tggcacaaaa catcagggca catcatctac tacaacttgt gctagcatac cttgctgcct 300
 actctcagca acagcagttt cgtccattca accaactagc tgcattggaac tctgcttctt 360
 acttgcaaca acggcaacta ccattcagtc agctacctgc tgcta 406

<210> 2826
 <211> 417
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-D2

<400> 2826

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 agaagcaaaa ggcaaggcta tggaagcaat ttctgaagga aaacttgaag atgctattga 120
 acaccttacc aacgcaatag tgctgaatcc actctcagca atcatgtatg gtactagagc 180
 atctgtgttt ataaaaatga agaaaccagc tgctgccatt cgtgatgccca atgctgctct 240
 agagatcaac ccagactctg caaaaggcta taaaactcgt ggaatggcat atgccatgct 300
 tggcaaattg gaggaagctg ctcatgatct gcacacagca tctaacttg attacgacga 360
 ggagatcaat gctgtgctca agaagggtgga gcctaattgct cacaagatag tggaaca 417

<210> 2827
 <211> 388
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B9

<400> 2827

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ttccttatgc tccttggctc ttctgcaagt gttgctaccg caaccatttt cccacaatgc 120
tcacaagctc ctatagcttc ccttcttccc ccatacctct caccagcggg gtcttcaatg 180
tgtgaaaccc caattgttca accctacagg atccaacagg caatcgcaac aggcattcta 240
ccattatcac ccttggttct ccaacaaccg tcagccctat tacagcagtt acctttgggc 300
catttggtgg caaaaaacat cagggcacia caactacaac aacttgtgct agcaaacctt 360
gctgcatact ctcagcaaca tcagtttc 388

<210> 2828

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A4

<400> 2828

gagcattcag aaacacacct agcgaagcgc actagcaacg acctaacaac aatggctacc 60
aagatattat ccctctttgc gcttcttgcc ctttttgtga gcgcaacaaa tgcgttcatt 120
attccacaat gtcacttgc tcctagtgcc attattccac agttcctccc tccagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctacaggc tacaacaagc gcttgcgggc 240
agcgtcttac aacaaccaat tgcccaatta caacaacaat ccttggcaca tctaaccata 300
caaaccatcg caacgcaaca gcaacaacia tttctaccag cactgagcca actagctgtg 360
gtgaaccctg tcgcctactt gcaacagcag ttgcttgca 399

<210> 2829

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A5

<400> 2829

aacaggcaac atagaaagtt gaatccagca gcaactgcag agcaacagtg gcgaccaaga 60

tatgcttctt ccttatgctc gttgctcttg ctgcatgtgc tgctgacacc acaattgctc 120
atcgatgcta acatgctatt atagctctcc ttcttcccgc atacctacca tcaatgatag 180
cttcaggatg tgaaaaccca gttcttcagt actatatgct ccaacaagcc atcgctgcca 240
gcatcatacc attatcacccg ttggtgcttc aacaatcggc agtactatat taggtgccgt 300
cattgctaca aacgatccag gcacagcagc tgcagcaact acagctacct gtgatcaacc 360

<210> 2830

<211> 155

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A6

<400> 2830

aacaggcaac atagcaagtt taattgtcgc agcatcgctc gagcaacacc ggccaaggtg 60
atatgcctcc ttatgctgct cgttgctcct gcaagcgctg ctgctgacac cacaattgct 120
cattgctgct tagatgctat tgcagttctt ctact 155

<210> 2831

<211> 332

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A7

<400> 2831

cggtcgcgtg ggcaacaact acaattgctg acattctacc cacaggctgc gggaaacatt 60
aacgccttct tgcaacagca acagttgcta ccattctacc cacaggatgt ggcaacaact 120
gttgcccttct tacaacaaca acaattgctg ccatttaacc aacttgcttt gacgaatact 180
accaccttat tgcagcagcc caccattggg ggcgccatct tctagattgt gctatgctgt 240
atactgtaat cataaagatc tgatactgat atgtgcaact tctcagtaat taaagatttg 300
agatctaata tatcagttca aaaacaacaa at 332

<210> 2832

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A8

<400> 2832

gaattttctaa ttcttgctgg cgatcacctg taccggatgg actatgaaa gttcattcag 60
gcacacagag aaacaaatgc tgatattacc gttgctgccc taccgatgga tgagaaacgt 120
gcaactgcat ttggcctcat gaaaattgat gaagaaggga ggatcattga gtttgctgag 180
aaaccgaaag gagagcagtt gaaagcaatg atggttgaca ccaccatact tggccttgat 240
gacgtgaggg caaaggaaat gccttatatt gctagcatgg gtatctatgt tttcagcaaa 300
gatgtaatgc ttcagctcct ccgtgaacaa tttcctgaag ccaatgactt tggaagtga 360
gttattccag gtgcaaccag cattggaaag agggttcagg cttatctgta tg 412

<210> 2833

<211> 304

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A9

<400> 2833

gctactcaaa gtgcggtggc tttcttgaca gcagcacaat acctaccatc aatgtgcggc 60
ttgtaccact catactacca aaataatcca tgcagcagca atgacattag tgggtgtttgc 120
aattgaagaa ttgtgtctac ctagccgtta tactcatata acggtgttaa gcaataaagt 180
accatacatt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaggaaaaaa aaaaaaaaaa 240
ttaaaaaaaaa attaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggggcg 300
gccg 304

<210> 2834

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B1

<400> 2834

acgcatgcac ccacgggacc ggggtgttac aaccacatct acaacttcag acagccaacc 60
tacacaccgg ggaaggtgtt aatacattct ggogatatcc tctctctcta cgatactaca 120

gacagcatgt ggcaaacaat ctgcatgct tacaacacca tcatttgatg taactacaac 180
aaactatattg ctacgaatcg taccatctta ctgcagaacc ccaccattca tgatgccatt 240
atctaaatca acctatgcat tatactgcaa tcataaagtt ctcatactga tatgcgcaaa 300
ttgtcagcag ttatagacta tacatctata tagaaagtcc agagacaaaa aataacgcca 360
gc 362

<210> 2835
<211> 392
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B10

<400> 2835

ccaatccaga tcagcaaagc ggcagtgcgt agagaggatc gtcgaacaga acagcatgaa 60
gatggtcacg gttctcgtcg tgtgcctggc tctgtcagct gccagcgct ctgcaatgca 120
gatgccctgc ccctgcgcgg ggctgcaggg cttgtacggc gctggcgccg gcctgacgac 180
gatgatgggc gccggcgggc tgtacccta cgcgagtagc ctgaggcagc cgagtgagc 240
cccgtggcg gcggcgccct actacgcgg gtgtgggcag ccgagcgcca tgttccagcc 300
gctccggcaa cagtgtgcc agcagcagat gaggatgatg gacgtgcagt ccgtcgcgca 360
gcagctgcag atgatgatgc agcttgagcg tg 392

<210> 2836
<211> 355
<212> DNA
<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-B11

<400> 2836

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atctcagcaa gctactcaaa gtgcggtggc aatcttgaca gcagcacaat acctaccatc 120
aatgtgcggc ttgtaccact catactacca aaataatoca tgcagcagca atgacattag 180
tggtgttagc aattgaagaa ttgtgtctac ctagccgtta tactcatata acggtgttaa 240
gcaataaagt accatacatt atgatgtttg tactaaaaaa aagtcaaaca aacaccatta 300

accaatcgat agcaaaacaa tagctgacag aaaaaaacga cgacgacgga cgtgc 355

<210> 2837

<211> 423

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-B12

<400> 2837

cagaaacaca ccaagcgaag cacattatca acaacctaac aacaatggct accaagagat 60

gateccctact tgcgcttctt gcgctttttg cgagcgcaac aaatgcgttc attattccac 120

aatgctcact tgctccaagt tccattatta cacagttcct cccaccagtt acttcaatgg 180

gcttcgaaca cccagctgtg caagcctata ggctacaaca agcaattgcg gcgagcgtct 240

tacaacaacc aatttcccag ttgcaacaac aatccttggc acatctaaca atacaaacca 300

tcgcaacgca acagcaacaa caattcctac cagcactgag ccacctagcc atggtgaacc 360

ctgccgncta cttgcaacag cagttgcttg catcanacc acttgctctg gcaaacgtag 420

ttg 423

<210> 2838

<211> 378

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B2

<400> 2838

cccacgcgtc cggaccatta gctttatcta ctccagagcg cagaagaacc cgatcgacac 60

catgaggggtg ttgctcggtg ccctcgtctt cctggctctc gctgcgagcg ccacctccac 120

gcatacaagc ggcggtgctg gctgccagcc accgccgccg gttcatctac cgccgccggt 180

gcatctgcca cctccggttc acctgccacc tccggtgcat ctcccaccgc cgttccacct 240

gccgccgccg gtccacctgc caccgccggt ccatgtgccg ccgccggttc atctgccgcc 300

gccaccatgc cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacaccc 360

atgcccgtgc caacagcc 378

<210> 2839
 <211> 397
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B3

<400> 2839

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 cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
 ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
 acctttatca cccttggttc tccaacaatc atcagcccta ttacaacagt tacctttggt 300
 gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
 tgctgcctac tctcagcaac agcagtttct tccattc 397

<210> 2840
 <211> 405
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B4

<400> 2840

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 gctgtggctg ccagacacca ccgtttcatt taccgcctcc gttctatatg ccgcctccgt 180
 tctatctgcc gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgaagc 240
 taagcccgtg ccagcagttc ggatcctgcc gcgttagcag cgtcggcagc ccgttcctgg 300
 gccagggcgt cgagtttctg aggcaccagt gcaaccgggc ggcgacgcc tacggctcgt 360
 cacagtgcc aagcgtgcag cagcagtgct gccaccagat caggc 405

<210> 2841
 <211> 307
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B5

<400> 2841

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cctacgcatg ctgctcggtc tgcattgcgtc tgctccgaca gcaaccatcc gcaatgctcg 120
cacgctcgta tctatagctt tctttcttcg tacgtatcac taaccatctg tgcgtatgt 180
gaaagcaaac ttatttaacc atacatgctc gaaccagcaa gcaatcgtag catgcaacct 240
atatcaatca cgcttggtcc acaaacaatc atcatatcac aaccgacacc tacggtgcat 300
gcattga 307

<210> 2842

<211> 366

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-B6

<400> 2842

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cgtgaggggtg ttgctcgttg cctcgcctct cctggctctc gctgcgagcg ccacctncac 120
gcatacaagc ggcggctgcg gctgccagcc accggcgccg gttcatctac cgccgccggt 180
gcatctgcca cctacggttc acctgccacc tccggtgcat ctcccaccgc cgggccacct 240
gccgcgcgcg gtccacctgc caccgccggt ccatgtgccg ccgccggttc atctgccgnc 300
gncaccatgc cactacccta ctcaaaccgc ccggcctcag cctcattccc agccacaccc 360
atgccc 366

<210> 2843

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B7

<400> 2843

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taactccaaa aaccatgaag ctggtgcttg tggttctcgc ttctattgct ttagtatcaa 120

gggtttcttg tacacagaca ggcggctgta gatgtggtca acaacatata catgatcagc 180
aacatcatcc acaacaacat catccacaaa aacgggaata tcaaccacca ccacaacatt 240
atcagcacca gcaacaccaa caacaacaag ttcacatgca accacaacaa catgagcatc 300
aacaagaact tcatgttcaa cgacaacaac tacaaccgca gcagcatcac caacaacgtc 360
gacaacagtg ccaacaacaa catcaatgtg aat 393

<210> 2844
<211> 411
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-B8

<400> 2844

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaattgct 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaag agcaagcaac atagaaagca c 411

<210> 2845
<211> 425
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A3

<400> 2845

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ctacctgctg cctaccccc acaatttctt ccattcaacc aactggcagc attgaactct 120
cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg tgtgagccct 180
gctaccttct tgatacaacc acagttgttg cgttctacc agcacgctgc gcctaacgct 240
ggcaccctct tacaactgca acaattgctg ccattcaacc aacttgcttt gacaaaccca 300

gcagcgttct accaacaacc catcattggt ggtgccctct ttagatttc ttatgagtta 360
tagttcaata ataaagtttt ttgtctgatg tttggggcctt cccagaaata agaaagtaca 420
tttct 425

<210> 2846

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G9

<400> 2846

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gagatatgca gtttgcactt gcattggaca cgaactcagg tcttcaccag ataagatctt 120
gtgaggggtga tgggattgac aggttggaaa aattaagtat tgggggcaga aagcaggaga 180
aagctttgag aaataggatgc tttgggtggta gagttgctgc aactacacaa tgtattctta 240
cctcagatgc ttgtcctgaa actcttcatt ctcaaacaca gtcctctagg aaaaattatg 300
ctgatgcaaa ccgtgtatct gctatcattt tgggcggagg cactggatct cagctctttc 360
ctctgacaag cacaagagct acgcctgctg tacctgttgg aggatgttac aggcttattg 420
atatccctat gagtaact 438

<210> 2847

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H1

<400> 2847

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gctaaccctg caaccctctt acaactacaa caattgttgc ctttgtcca acttgctttg 120
acaaaccag cagccttcta ccaacaacac atcattggtg gtgccctctt ttagattgat 180
tattagttgt aattcaataa taaagttttt cggatgatgt atgtggccaa ccagaaataa 240
gaagttacat ttccagattc taaaagaatc aacaatcacc agacctatct ttgggtgcaga 300
cattgttaca aaacaataag ggaacatcag ctgcagcaac tcgtgctacc tgtgatcaac 360

caagtagctc tggcaaacct ttctgcctac tcttagcaac aacaatttct 410

<210> 2848

<211> 473

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H10

<400> 2848

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gccaaaatat ttgtcttcct tatgtctgctt ggtctttctg caagtgtgc taccgcaacc 120

attttccac aatgtcaca agctcctata gttcctttc ttccccata cctctcacca 180

gcggtgtctt cagtatgtga aaaccaatt cttcaaccct acaggatcca acaggcaatc 240

gcagcaggca tcttaccttt atcacccttg ttctccaac aaccgtcagc cctattacag 300

cagttacctt tgggtgcattt gttggcaca aacatcaagg cacaacaact acaacaactt 360

gtgctaggaa accttgctgc ctactctcag caacagcagt ttcttcatt caaccaactg 420

gctgcattga actctgctgc ttatttgcaa caacaactac cattcagtca gct 473

<210> 2849

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-H11

<400> 2849

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ggtctttctg caagtgtgc taccggcacc attttccgc aatgtcgcga agctcctata 120

gtttcccttc ttccccgta cctctcacca gcggtgtctt cggatgtga aaaccaatt 180

cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt atcacccttg 240

ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcattt attggcacan 300

aacatcagg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360

caacagcaag ttctttcatt caaccaacta gctgcattga actctgcttc ttatttgcaa 420

caacaacaac taccattcag ccagctacct

450

<210> 2850

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H12

<400> 2850

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tatacatgct gaaacggaag cagactgcac acaactagaa aactcaaaca aacttcgctt 120

catatcctgt ccacgtccaa aggtgaggtg gtaatggatc acgatccaaa cgcttcacaa 180

aatagtagga cactaaataa attttagttt aaaaatgaat agaaataggg cctgatctta 240

atcagatcct taaatcttag tgtaaaattt agagcccgat gtcaccctc caataaacia 300

agccaagtta gagcccattg tcaccctcc aataaaciaa gccagtttg atttccaag 360

gggcgctcctt tcttccaagg tccaaaagac cagtgaagag aaagggtcc gatgcagtag 420

atatgtctag ttggattca 439

<210> 2851

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H4

<400> 2851

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cctccttgcg cttcttgccc ttttagtgag cgcaacaaat gcgttcatta ttccacagtg 120

ctcacttgct cctagtgcc ttattccaca gttcctccca ccagttactt caatgggctt 180

cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga ggccttaca 240

acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac aaaccattgc 300

aacgcaacia caacaacia aacagtttct gccatcactg agccacctag ccgtggtgaa 360

ccctgtcacc tacttgcaac agcagctgct tgcattccaa ccacttgctc tggcgaacgt 420

agctgcttac cagcaacia a 441

<210> 2852

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H5

<400> 2852

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tttacaacag caacagctac caccattcag ccagctagct gatgtgagcc ctgttgccctt 120
cttgacacaa caacagtgtg tgccgttcta cctgcacgct ggcgctaacg ctggcaccct 180
cttacaactg caacaattgc tgccattcaa ccaacttgct ttgacaaacc caacagcgtt 240
ctaccaacaa cccatcattg ggggtgccct tttttagatt gcttatgagt tatacttcaa 300
taatgaagtc ttttgatga tgtctgtggc ttcccagaaa taagaaagta catttctaga 360
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<210> 2853

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H7

<400> 2853

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aacaacaaca tcaccaacaa tcacaaggcc atgtgcaaca acacgaacag agccatgagc 120
aacaccaagg acagagccat gagcaacaac atcaacaaca attccagggt catgacaagc 180
agcaacaacc acaacagcct cagcaatatc agcagggcca ggaaaaatca caacagcaac 240
aatgtcattg ccaggagcag caacagacta caagggtgcag ctataactac tatagcagta 300
gtctaaatct aaaaaattgt catgaattcc taaggcagca gtgcagccct ttggtaatgc 360
cttttctcca atcacgtttg atacaaccaa gtagctgcc a tgtattgcag caacaatgtt 420
gtcatgatct t 431

<210> 2854

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-H8

<400> 2854

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gtgttgctac cgcaaccatt ttcccacaat gctcacaagc tcctatagct tcccttcttc 120

ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaac cccaattgtt caaccctaca 180

ggatccaaca ggcaatcgca acaggcatct taccattatc acccttggtc ctccaacaac 240

cgtcagccct attacagcag ttacctttgg tccatttggg ggcacaaaac atcagggcac 300

aacaactaca acaacttggt ctagcaaacc ttgctgcata ctctcagcaa catcagtttc 360

ttccattcaa ccaactggct gcattgaact ctgctgctta ttgcaacaa caattacat 420

tcagccagct agttgct 437

<210> 2855

<211> 376

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-016-Q1-K1-A1

<400> 2855

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ccatctcccc catccgccgc cgccgccacc gctgctggcg ggacggggccg tgcgtccgtt 120

ccagcgaaga ggagcagcgg gtcggaggag ccgccggcga ggtcggggccg cgggggatcg 180

agatggtgct gtgggagctc acggccatca ccgcctactt cctcgggctg aggcgcacct 240

accgnetcgc gctccgcata cagcgccgcc tcatcccgcc caaccacccc aggatccggg 300

acttcgtcta caggcgcaca cgggatgtct tcaacgtcgc agtgtcggtc cacaagaaca 360

ttcagcagag agacat 376

<210> 2856

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A10

<400> 2856

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gcaacaacct atcaacaatg gctgccaaaga tattatccct ccttgcgctt cttgcgcttt 120
ttgcgagcgc aacaaatgcg tccattattc cacaatgctc acttgctcct agttccatta 180
ttccacagtt cctcccacca gttacttcaa tggccttcga acaccagct gtgcaagcct 240
ataggctaca acaagcgatt gcggcgagcg tcttacaaca accaattgcc caattgcaac 300
aacaatcctt ggcacatcta acaatacaaa ccatcgcaac gcaacagcaa caacagttcc 360
taccagcact gagccaccta accatgggtg 389

<210> 2857

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A11

<400> 2857

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tttctgacct atcaaaacgt caacttctaa accgtcttct ggcaccacat atttcttata 120
gcattgtctg ggagatagca aaactgtgga tgaaaggctg caaggttatc atccttgaca 180
tcccgtgct gtttgagaca aagatggata gatggacgaa tccaatcatt gttctctggg 240
ttgatccaaa agtccagatt gagaggctca tttcaagaga tggatgctct gaaggacaag 300
ctcagaatag gatcaatgca cagcttgac tagactggaa gaaatcagaa gcagacatag 360
tgattgacaa ttctggttcc ctggatgaca ccaaacagca attccaagaa gtgttgatga 420
aagtctc 427

<210> 2858

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A12

<400> 2858

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ccctgcttgc gcttcttgcc ctttttagtga ggcgaacaaa tgcgttcatt attccacagt 120
gctcacttgc tcctagtgcc attattccac agttcctccc accagttact tcaatgggct 180
tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcggcg agcgccttac 240
aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta caaaccattg 300
caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta gccgtggtga 360
accctgtcac ctacttgcaa cagcagct 388

<210> 2859

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-016-Q1-K1-A2

<400> 2859

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caacaatggc taccaagata ttagccctcc ttgcgctcct ttccctttca gtgagcgcaa 120
caactgcatt cattattcca caatgctcac ttgtctctaa tgccattatt ccacagttcc 180
tcccatcagt tacatcaatg ggcacgcaac accctattgt gcaagcctat aggctacaac 240
aagcgcttgc ggcgagcgtc ttacaacaac cgtttgccca attacaacaa caatccttgg 300
cacatctaac catacaaacc atcgcaacac aactagagca acagtttgtg cccgcattga 360
gccaaactagc cgcggtgaac cctgtctcct acttgcaaca gcaactgctt gcatccaacc 420
cacttgctct ggcgaacaca 440

<210> 2860

<211> 345

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-G8

<400> 2860

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tgctccagca gatgaagctc acgcacgctg gcctttgaga acatatagta atcagaatta 120

tgtcaatggc cctcttgctg atgagttctt tgacacaggg aatgatacca atgggggttg 180
atattccagg cagcagcaag ctgatggctt cccagcacct cgccaagttg atgaaagtat 240
ggatattttat gatgccccat ctgattacaa cttggtggat ggaaaagatg acttcgtata 300
tctgaacgac attctggatg agccnacttg gaaatgaatc gctct 345

<210> 2861

<211> 279

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F5

<400> 2861

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agcaacagca gtttcttcca ttcaaccaac tggctgcatt gaactctgct gcttatttgc 120
aacaacaact accattcagt cagctagctg ctgcctaccc ccagcaattt cttccattca 180
accaactggc agcattgaac tctgctgctt atttacaaca gcaacagcta ccaccattca 240
gccagctagc tgatgtgagc cctggtgcct tcttgacac 279

<210> 2862

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F6

<400> 2862

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gaaccctatc gcctacttgc aacaacagct gcttgcatcc aaccacttg ctttggcaaa 120
cgtagctgca taccaacaac aacaacagtt gcaacagttt ctaccagcgc tcagtcaact 180
agccatggtg aaccctatcg cctacctaca acagcaacaa cttctttcat ctagcccgct 240
cgctatgggc aatgcaccta catacctgca acaacagttg ttgcaacaac agttgctgca 300
acaaattgta ccagctctta ctcagctagc tgtggcaaac cctgctgcct acttgcaaca 360
actattcca ttcaaccaac tgactgtgtc gaactctgct gcgtacctac aacagcga 418

<210> 2863

<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F7

<400> 2863

ctgatcgaag ctttcagccg agcaccatcg tcacagtcag taaccaagca taggtgtgtc 60
tccgagtgat ttgcgctgag cgatcagttc atccagagcg agcggagctg agctgagctg 120
agctgagcga gcttgcggtg cttgagagac cctgctgcc a tggctaccaa ccaggacaag 180
gctagctacc aggccggtga gaccaaggcc cgcaccgagg agaagaccgg gcaggcgggtg 240
ggggcgacca aggacacggc gcatcacgcc aaggaccgtg cggcggacgc ggcggggcac 300
gcgggcgggca agggccagga cgccaaggag gccaccaagc agaaggcgtc cgacaccggc 360
ggctacctgg gaaagaagac cgacgaggcc aagcacaacg ccggcgagac ga 412

<210> 2864
<211> 395
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F8

<400> 2864

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accatccata cggtccttgc tctttctagc atgtagcagc taactgagc aataactaact 120
aaatgcttac aagcttctat agcttccatt gtttcccat accttacata aatgatcgct 180
agatcatttg aaaaccta tcttcatcga ctatacgctc caacaagcaa tctctaccat 240
gcagcatatc ttaatcactc tagctgtttc aacaatgcga cagccgtatc tcattgagca 300
catcattggt acgacaccat caagccacag cataccgaca ccacatcagc tacctgtcac 360
taaccaatga tgtctagcaa acctatctca ctact 395

<210> 2865
<211> 268
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F9

<400> 2865

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ggaagaaatg gagctttcta gcaagctctt cacggccggc ctctcttgca tgctgctgat 120
gctgtccgca gatgtcccg cggcgggcca tgcggaggct ccgacgtgcc agtcgcagaa 180
ccacaagttg cagggcccg gactccgcac tgacatatgg gccatcagct gcaggaacga 240
ggggttatcc tgcggcatgt gccgcggc 268

<210> 2866

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G1

<400> 2866

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cctccgaatc tccgattgcc gccgtccagg tttggcagg gccggccgac agttgagaat 120
gggactgagg cgtctgatga gatgctgctg ctgcattgca aagcacgcgg acgacggcga 180
caagatcgat ttcggagggt gcaatgttca cgttgtcaca agcaaagagg actgggacca 240
aagaattgcg gaggcaaaca aggatgggaa aaccgtggtt gcaaacttca gcgcttctg 300
gtgtggggcg tgccgtgtca tcgcacctgt ctacgccgaa atgtcgcaga cgtaccccca 360
gctcatgttc ctgacgatcg atgttgatga cttgatggag ttcagctcgt cgtggg 416

<210> 2867

<211> 347

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G10

<400> 2867

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tatgctcctt ggtctttctg caagtgtgc tacagctacc attttccgc aatgctctca 120
agctcctata gcttcccttc tttccccgta cctatcacca gcggtgtctt ctgtatgtga 180
aaaccaata cttaaccct acaagatcca acaggcaatt gcagctggca tcttaccttt 240

atcacccttg ttactacaac aatcattatc cctattacaa cagttacctt aggtgcattt 300
attggcacac atcatcaagg cacaacaact actacaactt gtgctag 347

<210> 2868

<211> 422

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-034-Q1-K1-G11

<400> 2868

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gcctcagtgc cagtcgttgc ggcagcagtg ttgccagcag ctcaggcagg tggagccgca 180
gcaccggtac caggcgatct tcggcttggc cctccagtc atcctgcagc agcagccgca 240
aagcggccag gtcgcggggc tgttggcggc gcagatagcg cagcaactga cggcgatgtg 300
cggcctgcag cagccgactc catgccccta cgctgntgcc ggcggtgtgc cccactgagg 360
aaactatgtg ctgtagtata gccgctggct agctagctag ttgagtcatt tagcggcgat 420
ga 422

<210> 2869

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G12

<400> 2869

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gccctaccca ccggccgctc ccaaggcccg tgccgcgcgc gactcgccct acgggggtcta 120
ctccaagcac atcgccgcga tagcgccgcg cccgctggcc aaagcaaggt cgcttgagac 180
gggaacgaag ctgcacatct ccaaccttga ctccggcgtc accatcgagg atgtccagga 240
actcttctca gaagttgggg agctcaagcg ttattctatg aattatgaca aggatgggag 300
atctaagggg actgtggaag ttgtctttgc aaggaaagt gatgctttgg atgctatcaa 360
gagatacaat ggtgttctac ttgatgggaa gccaatgaat ctagagctca ttgga 415

<210> 2870
 <211> 403
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G2

<400> 2870

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tattccacag tgctcacttg ctccctagtg cagtattcca cagttcctcc caccagttac  180
ttcaatgggc ttccaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc  240
gagcgcctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct  300
acaaaccatt gcaacgcaac aacaacaaca acagtttctg ccactactga gccacctagc  360
cgtggtgaac cctgtcacct acttgcaaca acaactgctt gca                               403
  
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<210> 2871
 <211> 421
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G3

<400> 2871

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gctcacaagc tcctatagct tcccttcttc ccccatacct ctaccagcg gcgtcttcaa  180
tgtgtgaaac cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct  240
taccattatc acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg  300
tccatatggt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc  360
ttgctgcata ctctcagcaa catcagtttc ttccattcaa ccaactggct gcattgaact  420
c                                                                                   421
  
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<210> 2872
 <211> 414

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-G4

 <400> 2872

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 gcaacacgca agaatagact tggactaact aaaaagggca tggatgatga tgaggaaggt 120
 ggaaaagatc tagatttcga tttggatgat gaaattgaga aaggatgatga ctgggagcat 180
 gaagaaacat tcaactgacga tgatgaggct gtagacattg atccagagga acgggcagat 240
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 gaagggggcc tgagcaagtc tggcaaggaa ctaaaaaagt tgcttgggcg cgctgctgga 360
 ctaaattgagt cagatgcgga tgaggatgaa gaagacgaag atcaagaaga tgat 414

<210> 2873
 <211> 347
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
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 <400> 2873

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 atctaacaat acaaaccatc gcaacgcaac agcaacaaca attcctacca gcaactgagcc 180
 acctagccat ggtgaaccct gccgnctact tgcaacagca gtttgcttgc ataaaaccca 240
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 gcgctcagtc aactagccat ggtgaaccct gccgcctacc tacaaca 347

<210> 2874
 <211> 411
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-G6

 <400> 2874

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accgtgcccc tcgacgcgtc ggtattgccg gccgagcccc acctccgcc tcttctacta 180
cacggggatc ggatacgcca caggctgagc gatggtgcta ggggtcttcg gctacggctc 240
tctcatctgg aaccctggct tcgacttcga cgacgaaatg ctcgagttca tcaaaggcta 300
caagctcacc tttaatctcg ctggcattga ccacagatgc acaccgatc atccgtcgag 360
gacctgcacg cttgataccg acgacgaggc catatgctgg agaattgcat a 411

<210> 2875

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G7

<400> 2875

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acggaccccc tcgcgaagag catccatggg acgaaccac aaaacctggt ggagaagatc 180
gtgcgctcca agatctatca gagcacctac tggaaggagc aatgcttcgg cctcaccgca 240
gagacgctag tcgacaaggc catggagctc gaccacaccg gcggaacctc cggcggcaac 300
cgcaagccca cccctttcct ctgcctcgcg ctcaagatgc tgcagatcca accagacaag 360
gacatcgtag tcgagttcat caagaacgag gattacaagt atgttcgtgt tctc 414

<210> 2876

<211> 354

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-G9

<400> 2876

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gatatgatgc tacagcagat gatctcatag atgttattga aggaagccgg atttacactc 180

cttgcgtata tgttgccaac aagattgata agataaact cgaggagctg gaaatcttgg 240
 acaaactttc ccattactgc ccggttagtg ctcatcttga atggaatctt gatggacttc 300
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<210> 2877

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F4

<400> 2877

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 cggcggctgt ggctgccaga caccaccgtt tcacttaccg cctccgttct atatgccgcc 180
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 cctgggccag tgcgtcgagt tcctgaggca ccagtgcagc ccggcggcga cgccctacgg 360
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<210> 2878

<211> 366

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E1

<400> 2878

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 tggcgcgtgg acgccacgt cgcctcagcc ttagggatcg agggcccttt ccgtccgcgt 180
 ggctgctgct cctctcgtct ctctccac ccgtccaagg catggagcac tgctatgtgg 240
 gacagccgat ctcgagggcc gaggcaatgc ccgagaggag gtccaggttc tggcagatgg 300
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<210> 2879
<211> 321
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E10

<400> 2879

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tatgcgtgca ttattcctca ttgctgactg gctcctagt ctattatacc aactgtctc 180
catctagata ctctactgga ctctgcccac cgttctcatc atgccagcta ttgctacga 240
gcccttgccg cttgcgttcg tcaaccccg c tatggatgtt taaatctact gtcacttgt 300
cgactatata aactctgcac t 321

<210> 2880
<211> 365
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E12

<400> 2880

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caaccatca ttggtggtgc cctcttttag atttcttatg agttatagtt caataataaa 180
gttttttgtc tgatgtttgt ggcttcccag aaataagaaa gtacatttct aaaaaaaaaa 240
aaaaaaaaaa aaaaaataaa aaataaaaaa aaaaaaaaaa aaaaaataaa aaaaaaata 300
aaaataaaat aataaaaaaa aaaaaattaa aggaaaaaaa aaaaaaaagg gccggccgtt 360
ttaaa 365

<210> 2881
<211> 425
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E2

<400> 2881

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caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
tcaatgtgtg aaaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcacctt gttcctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
aactc 425

<210> 2882

<211> 423

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-034-Q1-K1-E3

<400> 2882

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tgcgcggggc tgcagggctt gtacggcgct ggcgcggggc tgacgacgat gatgggcgcc 180
ggcgggctgt acccctacgc ggagtacctg aggcagccgc agtgcagccc gctggcgggc 240
gcgccctact acgcccgggtg tgggcagccg agcgccatgt tccagccgct ccggcaacag 300
tgctgccagc agcagatgag gatgatggac gtgcagtcg tgcgcagca gctgcagatg 360
atgatgcagc ttgagcgtgc cgctgccgnc agcagcagcc tgtacgagcc agctctgatg 420
caa 423

<210> 2883

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E4

<400> 2883

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 ctgcttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
 tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta 180
 tgtaaaaacc caattcttca accctacagg atccaacagg caatcacagc tggcatctta 240
 cctttatcac ccttgttcct ccaacaatca tcagccctat tacatcagtt acctttgggtg 300
 catttattgg cacaaaacat cagggcacaa caactacaac aacttgtgct agcaaacctt 360
 gctgcctact ctcagcaaca gcagtttctt ccattcaacc aactagctgc 410

<210> 2884

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-034-Q1-K1-E5

<400> 2884

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 aggaccccaa aatctcagat ccttcctgcc cgcccgcccg tgcccgtcga cgcgtcgttc 120
 ttgccggccg cgctcacct ccgccctctc ctctccagg gggatcggat acgccacagg 180
 ctgcgcgatg gtgctgtggg tcttcggcta cggctccctc atctggaacc ccggcttcga 240
 cttcgacgac aaaatcctcg gcttcatcaa gggctacaag cgcaccttta atctcgcttg 300
 cattgaccac agaggcacac cggagcatnc ggcgaggacc tgcacgcttg aaaccgacga 360
 cgaggccata tgctggggaa ttgcatattg tgtcaagggt ggtccagaaa aagagc 416

<210> 2885

<211> 230

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E7

<400> 2885

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 tgcatttctg tagaataatc cctgcaattt ccataaaagc tagtgcgagc tgcgctgacc 120

ttgcgctata tttgtggaat taccggaagc atgctgctgc gatctatgaa tgaacacaag 180
acacttgtaa ctggtactac aagatccaac aggcaatcgc agcaagcatc 230

<210> 2886

<211> 245

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-E9

<400> 2886

atcgctcaca tagctcctat accttgcatt cttcacctat acctctcacc agcggctgct 60
tgcattgtgtg aaaacccaat cgatcagacg taccggatcc aacaggcaat cgcattccagg 120
atcctaccat cattaatctt gctcctccaa catgcgtcaa ccctattaca gcagctaact 180
ttggggccatt tggagggaca aaaccatgcg ggtccacaac gtccaaaacc tgggcctgcc 240
aaact 245

<210> 2887

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F1

<400> 2887

ccaactagca acatagaaag cacaatagtg taccaacaat ggcagccaaa atatttgggt 60
tccttatgct ccttggctct tctgcaagtg ctgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc tttcttcccc catacctctc accagcgggtg tcttcagtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagca ggcattctac 240
ctttatcacc cttgttctc caacaaccgt cagccctatt acagcagtta cttttgggtg 300
atttgttggc acaaaacatc aaggcacaac aactacaaca acttgtgcta agaaaccttg 360
ctgcctactc tcagcaacag cagtttcttc cattcaacca actggctgca ttgaactct 419

<210> 2888

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F10

<400> 2888

gggcgtcagc ttcagctatc cgcgaccgcg acgatgggtc tgatcgtggc cgtcacggtg 60
ccagctccgg ccggcgtgcg cgtgctcggc aggggcgccg cgcgctgac gccgacaccg 120
tggacgggttgc tcgtggggccc gagacgcttc tccgagcgga tgtccgtcga gaccaccgac 180
gccaccagca ccatcgacgt gggcggccta gatgaccacg cgctggaggc tacgaactcc 240
aagacaggtg tggcgggtcat gcttggaggt ggcgcccgtg cataggctct taccgctaac 300
cagactgcag tccaagcccg cggtgccca 328

<210> 2889

<211> 266

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F11

<400> 2889

gctgggtgtga gccctgctac cttcttgaca caaccacagt tgttgtcgtt ctaccagggc 60
gctgcgcta acgctggcac cctcttaca ctgcaacact tgctgacatt caaccaactt 120
gctttgacaa acccagcagc attctaccaa caaccatta ctgggtgggtgc cctcttttag 180
atttattatg agttatagta caataataaa gacttctgcc tgatgttcgc gtattaccag 240
aaataagaaa gtacatttgt aagcac 266

<210> 2890

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F12

<400> 2890

gttcttcgcc accccgccgg tgcacggctc gctggcgaac caggtgggtgc acgccggggg 60
acctgtgctt caagctcccc gacgggggtga gcctggagga gggcgccatg tgcgagccgc 120
tgagcgtggg cgtgcacgcg tgccgccgtg cggaggtggg gcccgagacg ggcgtgctcg 180
tgggtgggcgc cggtcccatc ggcttgggtg cgctgctagc ggcgcgagcc ttcgggcgcg 240

cgcgctggt ggtcgtggac gtggacgacc accgcctggc cgtggccagg tcgctgggcg 300
 cggacgctgc ggtgcgggtg tcgtcccgcg cggaggacct ggcggacgag gtggagcgca 360
 tacgcgcggc catgggctcg gacatcgacg tcaggctgga ctgagccggg ttc 413

<210> 2891
 <211> 407
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F2

<400> 2891

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 cctgcggcgt tggcagcacc ccgattctgg gccagtgcgt cgagtttctg aggcatcagt 120
 gcagcccagc ggcgacgcc tactgctcgc ctcaagtcca gtcgttgccg cagcagtgtt 180
 gccagcagct caggcaggtg gagccgcagc accggtacca ggcgatcttc ggcttggtcc 240
 tccagtccat cctgcagcag cagccgcaaa gcgccaggt cgcggggctg ttggcggcgc 300
 agatagcgca gcaactgacg gcgatgtgcg gcctgcagca gccgactcca tgcccctacg 360
 ctgctgccgg cgggtgtccc cactgaagaa actatgtgct gtagtat 407

<210> 2892
 <211> 414
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-F3

<400> 2892

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 ggtcagacca ccgcagctaa gcccgtgcca gcagttcgga tcctgcggcg tcggcagcgt 120
 cggcagcccc ttcttgggcc agtgcgtcga gttcctgagg caccagtgcg gcccggcggc 180
 gacgccctac ggctcgccac agtgccaggc gctgcagcag cagtgtgtgc accagatcag 240
 gcaggtggag ccgctgcacc ggtaccaggc gacatacggg gtgggtcctgc agtccttcc 300
 gcagcagcag ccgcagggcg agctcgcggc gctgatggcg gccaggtag cgcagcagct 360
 gacggcgatg tgcggtctgc agctgcagca gccaggtccc tgcccttgca acgc 414

<210> 2893
 <211> 371
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D9

<400> 2893

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 ggattctacc cacaggatgt ggcaaacaat gtctgcttct tacaacaaca acaattgctg 120
 ccatttaacc aactcgcttt cacgaatcct accaccttat tgcagcagcc caccattcgt 180
 ggtgccatct tgtacaatct ttatgaacta tactgtaata ataaagttct aatgctgcta 240
 aaaccaagcc gggagcgggt gcgagggcaa gaacttctac acccgagcg cgttcctgat 300
 cgccgacaac aagtaccgga acttaacgga tggccgttct gaagaatcca gctttcgtca 360
 gattgctggc t 371

<210> 2894
 <211> 409
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C5

<400> 2894

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 tcttctgat ccactatca agaaagtgga ggaaagtgct accgacttct tggttgataa 180
 ggtctcgca tttcctggag aggtctctgt gctcgcttg ggtcctctga caaacatagc 240
 attggccatc aagaaggatc cctcattcgt gaaaaacggt aagaagatcg ttgtgctggg 300
 tggagcggtt tttgcggctg gaaatgccac tccttccgct gaagcaaata tccacagtga 360
 tccggaggca gccgacatgg ttttacttc tggggcggac atctacgtc 409

<210> 2895
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C6

<400> 2895

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gagccaccaa ggcagctccg gcgcctgatt attgaaggca tgcacttctc acggcagcct 120
cgatggatca accgctcctg cctgccacgc ctctgctcct tatctctgat ggtgcacgct 180
cttgaagcac aggacctaga taatctagcg aggttgccag agctccagta cctcatgcta 240
gatggtctca gctggcctcc aaggatatact gttggcccag acgacttcag gaatctgaag 300
ttctgcgaag tgggcacaac gttcgagttt cgtaagggcg ccatgccaa gcttgaagag 360
ctgcactttg gagtttatgc aggggtacagt agttgggaac agtatggtgt g 411

<210> 2896

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C7

<400> 2896

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ctttacctcc tggggctgcg tgctctttat gcatgcgggg ctaactcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aatgatagct 180
tcactatgtg aaaaccaccc tcttcaaccc tatacgctcc aacacgcaat ctcagcaagc 240
aacatacctt tatcaccctt gtttcaacaa tcgccagccc tatctttggt gcagtccttg 300
ctacaaacca tcaaagcaca gcagctgcag caactcctac tacctgtgat caaccaacta 360
gctctggcaa acctttcttc atactatcag caacaacaat ctcttccatt caaccaacta 420
tataactga accc 434

<210> 2897

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C8

<400> 2897

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gatcggccta tggccgagcc cgttcgtgat ccgcgtcctg atcgccctga agctgaaggg 120
cgtcgagttc gagttcgtgg aggaggtggt gggcaggaag agcgagctgc tgctgaggtc 180
gaacccggtg cacaagaaga tccccgtcct gctccaccac ggcaagcca tctccgagtc 240
tctgatcatc gtccagtaca tcgacgaggt ctggtcctcc ggcgcgccgg ccttcctccc 300
cgccgacgct cagccccg cggtccagcg gttctgggcg cagtacgtcg acgacaagct 360
gccttgggcg atccgcatac tgaagggaac ggacgacgac gggggc 406

<210> 2898
<211> 350
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C9

<400> 2898

gtgaagccgc cgccgtgca gtgtccatag ccaccgcagg agactgagat ggggggtggg 60
tgtcaagacc cacaggacca atgcgtactt caagcgtttc caggtgaagc tcaagagaag 120
gcgcgctggc aagacagact acagggccag gataaggctg attaaccaag aaaaaacaa 180
gtacaatata cccaaatata gatttgttgt gctgatttac caacaaggac atcacaggac 240
agatcatgtc tgctagtata gcacgtgata tggatcttgc ttctgcttac tcgcatgatg 300
tgccacgata tggacttgaa gttgggtctga ccaactatgc agctgactac 350

<210> 2899
<211> 420
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D1

<400> 2899

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ctgcttgctc tttctgcatg tgttgctaac ggcacaattt tccctcaatg ctcacaagct 120
cctatagctt cccttcttcc ccctacctt ccatcaatga tagcttcagt atgtgaaaac 180
ccagctcttc aaccctatag gctccaacaa gcaatcgcag caagcaacat acctttatca 240

cccttgtttc aacaatcgcc agccctatct ttggtgcagt cattggtaca aaccatcaag 300
gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct ggcaaaccct 360
tctccctact atcagcaaca acaatttctt ccattcaacc aactatctac actgaaccct 420

<210> 2900

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D10

<400> 2900

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gcatcgccat cgcgagacgc gacctaaaca agaccgagcc atgggaccta ccgaaagttg 120
caaagatggg cgagaaggag tggacttctt tctaccagaa ggaccgcaag taccgacgg 180
ggctgagggc gaaccggggc actgaggcgg gttattggaa ggcgaccggc aaggacaagg 240
aggtctacaa cccctttgca gcggaagggc tgctgctggg cggcatgaag aagacgctcg 300
tggtctacaa aggcagggtc cccaggggtg acaaaaccaa ctgggtgatg cacgagtaca 360
ggctcgaagg cagcggtagg gctcctgcta 390

<210> 2901

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D11

<400> 2901

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agctcaagtc agcaattcgg ttcgcgaccc ttctgtcacc gtcttcaaag gctactcgct 120
gcgtaaagac accgaggaat acctcgccgc gcgcgggtta aggaacgctc tctacgccat 180
tgatgcaaca gatgcacgag atgaattgtt cgacgatcta gttccctgcc ctttccagca 240
acctgatgga gctgcatcgt ctactctgaa cagatcacag gagattgaaa tccgaccatc 300
aaagaagcat gccaaagttg atgagcaagt accattacct gataatcatc tctcttgcat 360
tgctgaattc gatggtgcct ctaaaggaaa tccagggaaa gcccgctgctg gagcaataa 419

<210> 2902
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D12

<400> 2902

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 ctccttgctc tttctgcatg tggtgctaac gcgacaattt tccctcaatg ctcacaagct 120
 cctatagctt cccttcttcc ccatacctt ccatcaatga tagcttcagt atgtgaaaac 180
 ccagctcttc aaccctatag gctccaacaa gcaatcgag caagcaacat acctttatca 240
 cccttgtttc aacaatcgcc agccctatct ttggtgcagt cattggtaca aaccatcaag 300
 gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct ggcaaaccct 360
 tctccctact atcagcaaca acaatttctt ccattcaacc aactatctac actgaaccct 420

<210> 2903
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D2

<400> 2903

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 ctcctatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
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 cacccttggt cctccaacaa tcatcagccc tattacatca gttacctttg gtgcatttat 300
 tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
 actctcagca acagcagttt cttccattca accaactagc tgcattgaac tctgcttctt 420
 attt 424

<210> 2904
 <211> 412
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D3

<400> 2904

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gcagcccgtt cctgggccag tgcgtcgagt tcctgaggca ccagtgcagc ccggcggcga 180

cgccctacgg ctgccacag tgccaggcgc tgcagcagca gtgctgccac cagatcaggc 240

aggtggagcc gctgcaccgg taccaggcga catacgggtgt ggtcctgcag tccttcctgc 300

agcagcagcc gcagggcgag ctgcggcgcc tgatggcggc ccaggtagcg cagcagctga 360

cggcgatgtg cggcctgcag ctgcagcagc caggtccttg cccttgcaac gc 412

<210> 2905

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D4

<400> 2905

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cctccttatg ctcttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120

ctcgcaagct cctatagctt cccttcttcc ccggtacctc tcaccagcgg tgtcttcggt 180

atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240

acctttatca cccttggttc tccaacaatc atcagcccta ttacaacagt tacctttggt 300

gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360

tgctgcctac tctcagcaac agcagtttct tccattcaac caactagggt cattg 415

<210> 2906

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D5

<400> 2906

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 tgattattcc acaatgctga cttgctccta ctgccattat tccacagtgc ctaccaccag 120
 ctacttcaat ggtctttgaa cacctagctg cataagccat cattcaacaa caagcgcttg 180
 cagctagcga attaccatcaa ccaattcccc aattgcaaca acgctccttg ccacatttaa 240
 caatgcatgc catcacaacg caacatcatc aacagctgct accagcactg acccacctag 300
 ccatggtgaa ccctgccgtc tacttgccctg agcatctgct agcatccaac ccactagctc 360
 tg 362

<210> 2907

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D6

<400> 2907

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 tcaaccttgt gcacctacc catggagctg atcaagacca gggtcacat cgagaaggac 120
 gtatacgaca acgtcgcgca cgcgttcgtg aagatcctac gcgacgaggg cccgtcggag 180
 ctgtaccgtg ggctgacacc cagcctgac ggcgtggtgc cgtacgcggc ctgtaacttc 240
 tacgcctacg agacgtgaa gcggctctac cgtcgcgcga cggggcggcg tcccggcgcg 300
 gacgtggggc ccgtggcgac gctgctcatc gggtcggcgg cgggcgccat cgccagctcg 360
 gccacgttcc cgctggaggt ggcccgaag cagatgcaag tgggcgctgt gggcggg 417

<210> 2908

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-D7

<400> 2908

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 ccccgtagcg tactcctctt cgcgccgtag aaatggcgct gccgaatcag cagggcggtg 120
 attacccag cttcaagctc gtcacgcttg gcgacgggtg aactggtaaa accacatttg 180

tgaaaaggca tcttactggc gagtttgaga agaaatatga gccaccatt ggtgttgaag 240
 ttcacctctt ggatttttagc actaactgtg gcaaaattcg cttttattgc tgggacactg 300
 ctgggcaaga aaagttcggt ggccttaggg atggctacta cattcatggt cagtgtgcca 360
 tcattatgtt tgatgtcact tctaggctga catacaagaa tgttccgaca tggcacagg 419

<210> 2909

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-034-Q1-K1-C4

<400> 2909

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 atcacaaggc catgtgcaac aacacgaaca gagccatgag caacaccaag gacagagcca 180
 tgagcaacaa catcaacaac aattccaggg tcatgacaag cagcaacaac cacaacagcc 240
 tcagcaatat cagcagggcc aggaaaaatc acaacagcaa caatgtcatt gccaggagca 300
 gcaacagact acaaggtgca gctataacta ctatagcagt agctcaaatc taaaaaattg 360
 tcatgaattc ctaaggcagc agtgcagccc tttggtaatg ctttttctnc aatcac 416

<210> 2910

<211> 396

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-F4

<400> 2910

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 gtctagcagc agccaccgcc gcctcatcct cgcagccgcc gtectgctct ccgtgctcgc 120
 ggctgccagc gccagcgccg ggacctcctg cgtgccgggg tgggccatcc cgcacaaccc 180
 gctcccagc tgccgctggt acgtgaccag ccggacctgc ggcatcgggc cgcgcctccc 240
 gtggccggag ctgaagagga gatgctgccg ggagctggcg gacatcccgg cgtactgccg 300

gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg cggggcccgg acgcgagct 360
ggagggccgn ctagaggacc tgccgggctg cccgcg 396

<210> 2911
<211> 430
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-015-Q1-K1-F5

<400> 2911

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gatggtcact ttcttaagac gagttgtggg agcccggaatt atgcagcacc tgaggtcata 120
tctggtaaac tatatgctgg tcctgaagtt gacgtctgga gctgtggagt tattctttat 180
gctcttcttt gtggcactct cccatttgat gatgagaata ttccaaacct tttcaagaaa 240
ataaaggggtg gaatatatac ccttcctagt catttgtcac cttcagtgag ggacttgatt 300
cccagaatgc tggttgttga tccaatgaaa aggattacaa tacgtgaaat ccgtgaacat 360
atgtgggttca agatccgact tccgcgctat ttggctgtgc cgncttcaga cactgctcaa 420
caagttaaaa 430

<210> 2912
<211> 282
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-015-Q1-K1-F6

<400> 2912

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attaagaggc gtcgatcggg catgggggtgc gacgacaagt gcgggtgcgc cgtgccgtgc 120
cccggcggca aagactgcag gtgcacgtcg gggagcggcg ggcagcggga gcacacgact 180
tgccgctgcg gggagcactg cgagtgcagc ccgtgcacgt gtggccgggc cacgatgccg 240
tncggccgcg agaacaggag ggctaacttg ctctgcgggg cg 282

<210> 2913

<211> 379
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F7

<400> 2913

gaactctcct gcttatTTTtac agcagcaaca actactacca ttcagccagc tagctggtgt 60
gagccctgct accttcttga cacaaccaca gttgttgccg ttctaccagc acgctgcgcc 120
taacgctggc accctcttac aactgcaaca attgctgcca ttcaaccaac ttgctttgac 180
aaacctagca gtgttctacc aacaacccat cattggtggt gccctctttt agattttctta 240
tgagttatag ttcaataata aagttttttg tctgaaaaaa aagccatacc ctactaaacc 300
gacccggact aaaactcata cacagacaca cccatgctta tgccaacaaa aaaactccaa 360
caaaaaaaaa aggggggggc 379

<210> 2914
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F8

<400> 2914

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atattttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccattttt 120
cctcaatact cacaagctcc tatagctgcc cttcttcccc cataccttcc atcaatgacc 180
gcttttagtat gtgaaaaccc agcccttcaa ccctacagga tccagcaagc aatcgcaaca 240
agcaacttac ctttatcaca cctgttcttt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcagaacag ttgcagcaac tcgtgctacc agtgatcagc 360
caagtagctc tggcaaacct ttccccctac tctcagcaac aacaatttct tccattcaac 420
caactgtcta tactg 435

<210> 2915
<211> 439
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F9

<400> 2915

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ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa 300
caatacaaac catcgcaacg caccagcacc accaattcct acaagcactg agccacctag 360
ccatggtgaa ccctgccgcc tacttgcaac agcagttgct tgcacaaac ccacttgctc 420
tggcaaacgt agttgcaaa 439

<210> 2916

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G1

<400> 2916

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gcttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaagca atcgagctg gcattctacc 240
tttatcacc ttgttcctac aacaatcatc agccctatta caacagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgccctactct cagcaacagc agtttcttcc attcaaccaa ctaagttcat tgaactctgc 420
ttcttatttg caaca 435

<210> 2917

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G10

<400> 2917

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caagatatta gccctccttg cgcttcttgc ccttttagtg agcgcaacaa atgcgttcat 120
tattccacag tgctcacttg ctcttagtgc cagtattcca cagttcctcc caccagttac 180
ttcaatgggc ttcgaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc 240
gagcgctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct 300
acaaaccatt gcaacgcaac aacaacaaca acagtttctg ccatcactga gccacctagc 360
cgtggtgaac cctgtcacct acttgcaaca gcagctgctt gcatccaacc cacttgctct 420
ggcgaacgta gctgcatac 439

<210> 2918

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G11

<400> 2918

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atggcagcca agatttttgc gtccttgcc ctcttgctc tttagcaag tgttgctacc 120
gcgactatta ttccacaatg ctcaacaacaa tacctctctc cagtgatagc cgcgagattt 180
gaatacccat ctatacaatc ctacaggcta caagaggcca tcacagcaag catcttacgg 240
tcgttagcat tgaccgtcca acaaccatat gccctattgc aacaaccatc cttagtgaat 300
ctgtatctcc aaagaatcac agcacaacaa ctacaacaac ggttgcttcc aacaattaat 360
caagtagttg cagcgaacct tgctgcttac cttcagcaac aacaatttct tccattcaat 420
caactagctg gggatgaacc tgc 443

<210> 2919

<211> 146

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G12

<400> 2919

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 caatgatggg ttatagttca ataataaagt tttttgtctg atgtttgtgg cttcccagaa 120
 ataagaaagt acatttctag attctt 146

<210> 2920

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G2

<400> 2920

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tatgggtgcct 60
 gcttatgctc cttgggtctt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
 tgaaaaccca attcttcaac cctataggat ccaacaggca atcgagctg gcattctacc 240
 tttatcacc ttgttctcc aacaatcatc agccctatta cagcagttac ctttgggtgca 300
 tttattggca caaacatca gggcacaaca actacaaca cttgtgctag caaaccttgc 360
 tgccactct cagcaacaac agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caaca 435

<210> 2921

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G3

<400> 2921

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 acgaggttat cctccttat gtccttgct ctttctacat gtcttgctaa cgcgacaatt 120
 gtccctcaat gtcacaagc tcctatagct tcccttattt ctccatacct tccatcaatt 180
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 gcaagcaaca tacctttatc gcccttggtg ttttaacaat caccaaccct atctttggtg 300
 cagtcattgg taaaacat caaggcaca caactgctgc aactcgtgct acctgtgatc 360

aaccaagtaa ctctggcaaa cctttctccc tactcttaac aacaacaatt tctttcattc 420
aaccaactgt ctacactgaa 440

<210> 2922

<211> 337

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G4

<400> 2922

cagaaacaca ccaagcgaag cgcactagca acaacctaac aacaatggct accaagatat 60
gatccctcct tgcgcttctt gcgctttttg cgagcgcaac aaatgcgtcc attattccac 120
aatgctcact tgctcctagt tccattattc cacagttcct cccaccagtt acttcaatgg 180
ccttcgaaca cccagctgtg caagcctata ggctacaaca agcgattgcg gcgagcgctc 240
tacaacaacc aattgccc aa ttgcaacaac aatccttggc acatctaaca atacaaacca 300
tcgcaacgca acagcaacaa cagttcctac cagcact 337

<210> 2923

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G5

<400> 2923

cgggatttaa cttcaaacat ggcggacgtc gatgtcgagc cggagggtcg cgccggtgct 60
ccaagaaga ggacgttccg caagtacagc taccgcgggc tgcacctcga tgcgctgctt 120
gacatgtcca ccgacgacct cggtcagctc ttcccagcgc gcgccaggag aaggttccag 180
aggggtttga agaggaagcc catggcgctc atcaagaagc tgcgcaaggc gaaaaaggat 240
gtcctgtcgc gcgagaagcc agagccagtg aagacccatc tccgcaacat gatcattgtc 300
cccgagatga ttggcagcat tgttggtgtc tacaatggca agaccttcaa ccaggttgag 360
atcaagcctg agatgattgg ccactatctt gcagagttct ccatttccta caagccggtc 420
aagcacggta 430

<210> 2924

<211> 106
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G6

<400> 2924

aagacgacac acattatcat gtgtggtatg accaataata tatgcatggt catgataaag 60
ttttggtttt aatgaatcta tcggccgctt gatgtctatg atggac 106

<210> 2925
<211> 429
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-G7

<400> 2925

gcaacataga aagtagaatc cattatcaac aatagagcaa caatggcgac caagatattt 60
tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
tgctcacaag ctctatagc ttccttctt ccccatacc ttccatcaat tatagcttca 180
gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240
atacctttat cgcccttggt gtttcaacaa tcaccagccc tatctttggt gcagtcattg 300
gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420
tctacactg 429

<210> 2926
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F3

<400> 2926

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cctcgtctct ctggctctcg ctgcgagcgc cacctccacg catacaagcg gcggctgcgg 120
ctgccagcca ccgccgccgg ttcacttacc gccgccggtg catctgccac ctccggttca 180

cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgccgccgg tccacctgcc 240
accgccggtc catgtgccgc cgcgggttca tctgccgccg ccaccatgcc actaccctac 300
tcaaccgccc cggcctcagc ctcaccccca gccacacca tgcccggtgcc aacagccgca 360
tccaagcccc tgccagctgc agggaaacctg cggcggttggc agcaccccga tcctggggcca 420
gtgcgtcgag ttcct 435

<210> 2927

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-E11

<400> 2927

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cctccttatg ctcttggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccaacgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
acctttatca cccttggtcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatntattg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaacaac 440

<210> 2928

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E12

<400> 2928

cagagcgcag aagaaccgga tcgacaccat gaggggtgtg ctggttgccc tcgctctcct 60
ggctctcgct gcgagcgcca cctccacgca tacaagcggc ggctgcggct gccagccacc 120
gccgccggtt catctaccgc cgcgggtgca tctgccacct ccggttcacc tgccacctcc 180
ggtgcattct ccaccgccg tccacctgcc gccgccggtc cacctgccac cgcgggtcca 240

tgtgccgccc cgggttcac tgccgccc accatgccac taccctactc aaccgccccg 300
gcctcagcct catccccagc cacacccatg cccgtgccaa cagccgcac caagcccgtg 360
ccagc 365

<210> 2929

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E2

<400> 2929

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tttcaacaat cgccagccct atctttggtg cagtcattgg taaaaccat cagggcacia 120
cagctgcagc aactcgtgct acctctgac aaccaagtag ctctggcaaa cttttctccc 180
tactctcagc aacaacaatt tcttccattc aaccaactgt ctacactgaa ccctgctgct 240
tatttgcagc aacaactatt accatttagc cagctagcta ctgcctactc tcagcaacia 300
caacttcttc catttaacca attggccgca ctgaaccccg ctgcttattt gcagcagcaa 360
atactactac catttagcca gctagctgca gcaaaccgtg ctctcttctt gacacagcaa 420
cagttgct 428

<210> 2930

<211> 352

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E3

<400> 2930

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atgacgatgg ttctgctact agttgccctt ggggattgtg tacccttttt atggcaattc 120
gatatgtgaa tgagttcgac ggtccctgtt tgttctctgt actcacctgt catgtggatt 180
tgatgcactt cagtgataaa actgtcagcc aacgttcatt acaagtggat ttttgcaaac 240
tggttatgta aaggataagt aattgtaatt tacaagtgtt ttagactttg tcttttatgc 300
tgtttaagaa tatatatggt acacttgatc tgatgtatct gtcctttatg cc 352

<210> 2931
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-E4

 <400> 2931

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 gataacttta ttgacacctg ccacatatTT catagatgtc ttgtcggaga aaacaaaaac 120
 acaactgatc catcaaacac aaaattcttc aatagtgcac attccgcacc gatagcaaAT 180
 cagagtcatc caccatcaag gcattattaa ccaatcacgc taagatttat tgcgactggc 240
 cttctcctcg ataccagact gcgaaaatct cttcctcagg acctcaagga cttgttccat 300
 ctttacatcc ttgactctga gcagcaccat aacggggtag agcagatcag ccattctccga 360
 agctgcacga gattggctct cgttctcaag cagcgtttga attagctcac cagcttcttc 420
 acgtattttc gagg 434

<210> 2932
 <211> 430
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-E5

 <400> 2932

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 tttttcacta gcaatagcag ccccaaattg ctttcctgac taggaacata ttctttacag 120
 gtataagcat gccaaactcta aactatatga atccttttat attctcattt ttaagtactt 180
 ctctgtttct gctacttttg tactgtatat tttcagcttc tccatcagac tgatgacccc 240
 atattcagtg tgctgcaagt gatttgacat atgtggctta tccttcaggt atgtctcatg 300
 ttgtgacttc attgctgatt gcttttgtaa tggTactgtt gagttcattt ctgggttaca 360
 tcagccttta ctgctttata ttgttctact aattttggct tgcacagcca ggatgattgg 420
 ttttctgcat 430

<210> 2933
<211> 432
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E6

<400> 2933

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agatttcctt cccttcttgc agaggaacag aaggcattct gccgttggtg aatatgtttt 120
tagtggccat cggttcaaac taacaattcc taaggagact tgcagtattg ctttctcatt 180
atctggtggt cggtgtcctg gtaaaggcga gccatactca gatgaagcta ttgctttgat 240
gaagagaaaag atactacagc gtgatgtgga gatagaagtt gaagcagttg acagaacaag 300
aacattcata gggtcgttgt gggagtccaa gaccaacatg ggctctgtac ttctggaagc 360
tgggctggcg aagctgagtt cttttggctt ggataggatg tcagatgctc atgtcctaac 420
aagagctgaa ca 432

<210> 2934
<211> 429
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E7

<400> 2934

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caatgtgaat gcctatgggc agaaggaaga gggaccaagc cgctggcagg agaggaagga 120
agccaagaga cagatgtatc tgatgagtac agagaaggct gcgaagctgg gcaactgtgaa 180
gcaaaaagct tcagaaactt cttctgttgg cgcatatacc caatgccaga agtgtttcca 240
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aacgcagcag cttaagaacc ccaagcttaa gaaaagcgta ccggtttctt atcaatttga 360
gaatcctgat attataaagg agagggaaga ggagcagaag atgatgaaag aaaagcagaa 420
gaaggagaa 429

<210> 2935
<211> 432

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E8

<400> 2935

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ttttgcctcc ttatgtcctt tggcttttct gcaagtgtctg ctacggcgac cattttcccg 120
caatgtctcg aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cacagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca tcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt ct 432

<210> 2936
<211> 282
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E9

<400> 2936

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gctgggtgtga gccctgctac cttcttgaca caaccacagt tggtgccgtt ctaccagcac 120
gttgcgcta acgctggcac cctcttacia ctgcaacaat tgctgccatt caaccaactt 180
gctttgacaa acccagcagt gttctaccaa caacccatca ttggtgggtgc cctcttttag 240
atttcttatg agttatagtt caataataaa gttttttatc tg 282

<210> 2937
<211> 427
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F1

<400> 2937

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tatgctcctt gctctttcta catgtgttgc taacgcgaca attttccctc aatgctcaca 120
agctcctata gcttcccttc ttccccata ccttccatca attatagctt caatatgtga 180
aaaccagct cttcaaccat ataagcttca acaagcaatc gcagcaagca acataccttt 240
atcgcccttg ttgtttcaac aatcgccagc cctatctttg gtgcagtcac tggtagaaac 300
catcaaggca caacagctgc agcaactcgt gctacctctg atcaaccaag tagctctggc 360
aaacctttct ccctactctc agcaacaaca atttcttcca ttcaaccaac tgtctacact 420
gaaccct 427

<210> 2938

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F10

<400> 2938

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tgctcatta tgctccttgg tctttctgca agtgctgcta cggcgagcat tttcccgcaa 120
tgctcacaag ctctatagc ttcccttctt ccccatacc tctcaccagc gatgtcttca 180
gtatgtgaaa atccaattct tctaccctac aggatccaac aggcaatcgc agcaggcatc 240
ttacctttat cacccttggt cctccaacaa tcatcagccc tattacagca gttacctttg 300
gtgcatttat tggcacaaaa catcagggca caacaactac aacaactcgt gctagcaaac 360
cttgctgctt actctcagca acagcagtta cctttggtgc atttgttggc acaaaacatc 420
agggcacaac aactacaaca actcgtgcta gc 452

<210> 2939

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F11

<400> 2939

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tggaaggatc tttagccga ggaggaggac gagctggagt cgctgtggga gcaccaagac 120

ctgatagagc agctgaagct cgagctgaaa aagggttcggt ccatcgggct gcccacgatc 180
ctcgaggagt cggagacgcc aaaggctccg atggaggacc tcaagccatg gcggatcgat 240
gccaagttcc tgcgcgaaga ccccatggac gagctgaaca agttctacaa gagttacagg 300
gagaggatgc ggaagtttga ctttttgggc taccagaaga tgtatgcgat agacttccta 360
cagttaaaag gccccagca atccaacaac tttctaaagt ccctgtcgcc cacggtggca 420
tccatcctgt cgcacaatt 439

<210> 2940

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-F12

<400> 2940

gcctcagcaa tatcagcagg gccaggaaaa atcacaacag caacaatgtc attgccagga 60
gcagcaacag actacaaggt gcagctataa ctactatagc agtagctcaa atctaaaaaa 120
ttgtcatgaa ttctaaggc agcagtgcag ccctttggta atgccttttc tccaatcacg 180
tttgatacaa ccaagtagct gccaggattt gcagcaacaa tgttgcgatg atcttaggca 240
gattgagcca caatacatc accaagcaat ctacaacatg gttcaatcca taatccagga 300
ggagcaacaa caacaaccat gtgagttatg tggatctcaa caagctactc anagtgcggt 360
ggcaatcttg acagcagcac aatacctacc atcaatgtgc ggcttgtacc actcatacta 420
ccaaaataat ccatgcagca gc 442

<210> 2941

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-F2

<400> 2941

atctaaccct acaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac 60
tgagccacct agccgtggtg aaccctgtca cctacttgca acagcagctg cttgcatcca 120

acccacttgc tctggcgaac gtagctgcat accagcaaca acaacagctg caacagttta 180
 tgccagtgc cagtcaacta gccatggtga accctgccgt ctacctaaa ctactttcat 240
 ctagcccgct cgcggtgggc aatgcaccta cgtacctaca acaacagttg ctgcaacaaa 300
 ttgtaccagc tctgactcag ctagctgtgg caaacctgc tgtctactta caacagttgc 360
 ttccattcaa ccaactggct gtgtcaaact ctgctgcgta cctacaacag cgacaacagt 420
 tacttaat 428

<210> 2942

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-E10

<400> 2942

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 ttttgeetca ttatgtctct tggcttttct gcaagtgtg ctacggcgag cattttcccg 120
 caatgtcac aagctcctat agcttccctt cttcccccat acctctcacc agcgatgtct 180
 tcagtatgtg aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact cgtgctagca 360
 aaccttgtg cctactctca gcaacagcag ttacctttgg tgcatttggt ggacanaac 420
 atcagggcac aacaactaca ac 442

<210> 2943

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-C9

<400> 2943

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 acgaatcaat caagtagttg cagcgaacct tgctgcttac ctccagcaac aacaatttct 120

tccattcaat caactagctg ggggtgaaccc tgctgcttac ttgcaggcac aacagctact 180
accattcaac caacttgtca ggagccctgc tgccttctta ctgcagcaac agttgcttcc 240
attccatcta caagttgtgg caaacattgc tgctttcttg caacaacaac aacaattgct 300
gccattttac ccacagggtg tgggaaacat taacgccttc ttgcaacagc aacagttgct 360
accattctac ccacaggatg tggcaaagaa tgtcgccttc ttacaacaac aacaattgct 420
gccatttaac caac 434

<210> 2944

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D1

<400> 2944

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ctctcaccag cgggtgtcttc ggtatgtgaa aaccaattc ttcaacccta caggatccaa 120
caggcaatcg cagctggcat cttaccttta tcaccttgt tctccaaca atcatcagcc 180
ctattacagc agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta 240
caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttccattc 300
aaccaactag ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 360
cagctacctg ttgcctaccc ccaacaattt cttccattca accaactggc agcattgaac 420
tctcctgctt atttaca 437

<210> 2945

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D10

<400> 2945

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ttttgcttcc ttatgctcct tgggtcttct gcaagtgttg ctacogcaac cattttccca 120
caatgctcac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180

tcaatgtgtg aaacccaat tgttcaaccc tacaggatcc aacaggcaat cgcaacaggc 240
atcttaccat tatcaccctt gtctctccaa caaccgtcag ccctattaca gcagttacct 300
ttggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg 420
aactctgctg cttatttgca ac 442

<210> 2946

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-D11

<400> 2946

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ctccttggtc tttctgcaag tgctgctacg ggcaccattt tcccgcaatg ctgcgaagct 120
cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggg atgtgaaaac 180
ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt acctttatca 240
cccttggttc tccaacaatc atcagcccta ttacaacagt tacctttggg gcatttattg 300
gcacanaaca tcagggcaca acaactacaa caacttggtg tagcaaacct tgctgcctac 360
tctcagcaac agcagtttct tccattcaac caactagggt cattgaactc tgcttcttat 420
ttgcaacaac aacaacta 438

<210> 2947

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D12

<400> 2947

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atggcggcca agatattttc catccttatg ctcttgctc tttctgcatg tgttgctaac 120
ggcaccattt ttctcaata ctcaagct cctatagctg cccttcttcc ccctacatt 180
ccatcaatga ccgcttcagt ttgtgaaaac ccagcccttc aaccctacag gctccaacaa 240

gcaatcgcaa caagcaactt acctttatca cccctgttct ttcaacaatc gccagcccta 300
tctttgggtgc agtcattggg acaaaccatc agggcacaac agctgcaaca actcgtgcta 360
ccagtgatca gccaaagtagc tctggcaaac ctttctccct actctcagca acaacaattt 420
cttcattca accaactgtc 440

<210> 2948
<211> 401
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D2

<400> 2948

gcacgcaggc ttttccggca acggttcgac tttccaatag ctggcgttct tcaggcgtag 60
gtgtcaccat cgggtgtctt gctatgtgaa aaccaattc ttcaacccta cacgatccaa 120
caggcaatct catctgtcat ttaccttta tcaccttgt tctccaaca atcatcagcc 180
ctattacagc agcaaccttt ggtgcattta ttgtcacata acataatagc acatcaacta 240
caacatcttg agctagcata cctttatacc tactctcagc aacatcaatt ttttacattt 300
aaccaactat ctgcatataa ctcttgttct tatttgcaac aactactact accattcaat 360
cagcttcttg ttgcctacac tcaacaattt tttccattaa c 401

<210> 2949
<211> 415
<212> DNA
<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-D3

<400> 2949

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tgacgggtgtt cagcaagctg ctcttggggg cgatgcacgt caagtcgtac gactgggtca 120
aactgctga ccccgatcct tcttccgcca cgagcaccac cagcaccagt tcttcgtcct 180
ccgatggccc atgcctgagg ctagcggaac tgggtgggtgga cgacgtcttc acggcgccct 240
gcgacacctc cgtgctgtac ccgacggcgg gaggggaacat gcaccgggtc accgncatgg 300

cgccctgcgc gatcctcgac gtccctgggc cccctactc catagaggag gacagggact 360
gcacgtacta cgcggaatta ccgtacgcaa accactcgct ggtggctgcg ggcga 415

<210> 2950
<211> 435
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D4

<400> 2950

cagcattcaa aaacacacca agcgaagcgc actagcaacg acctaacacc aatggctacc 60
aagatattag cctccttgc gcttcttgcc ctttttagtga gcgcaacaaa tgcgttcatt 120
attccacagt gtcacttgc tcctagtgcc attattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcggcg 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
gccgtgggtga accctgtcac ctacttgcaa cagcagctgc ttgcatccaa cccacttgct 420
ctggcgaacg tagct 435

<210> 2951
<211> 426
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D5

<400> 2951

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ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcacc gtacctctca ccagcgggtgt cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
tttatcacc ttgttcctac aacaatcatc agccctatta catcagttac ctttggtgca 300
tttatcggca caaacatca gggcacaaca actacaacaa cttgtgctaa caaaccttgc 360
tgccactct tagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420

ttctta

426

<210> 2952

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-D6

<400> 2952

aactagcaac atagaaagca caatagtgtg ccaacaatgg cagccaaaat attttgctc 60

cttatgctcc ttggtctttc tgcaagtgtc gctacggcga ccattttccc gcaatgctcg 120

caagctccta tagcttcctt tcttcccccg tacctctcac cagcgggtgc ttcggtatgt 180

gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg catcttacct 240

ttatcacctt tgttcctcca acaatcatca gccctattac atcagttacc ttggtgcat 300

ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct 360

gcctactctc agcaacagca gtttcttcca ttcaaccaac tagctgcatt gaactctgct 420

tcttatttgc 430

<210> 2953

<211> 429

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-D8

<400> 2953

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acaagagggtg tgattgattt tatcggtcgc tattctgatg tagaccttag aactgcaaaa 120

gatggagagt atgttaaggt tactgggggtt gttacttgtg gaaatttgcc ccttgagtcc 180

tcattccaac ggggtgccacg atgtgtgtac acttcaactt gcttgtacga gtacaggggt 240

tgggactcga aagccgcaaa cgccacacac cgacggttta cttgggggtct caggtcaatg 300

gaacggcacg cgggtggactt ctacatctcc gatttccagt ccgggctgcg agcactggtc 360

agggcaggat ccggcgcgcg cgtgaccca tacgtggacg agtccgctgc tatcgacgta 420

naccagac 429

<210> 2954

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-E1

<400> 2954

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctatag gatccaacag gcaatcgag ctggcatctt 240
acctttatca cccttggtcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttggtg tagcaaacct 360
tgctgcctac tctcagcaac aacagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgc 434

<210> 2955

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-C8

<400> 2955

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tctcacaggc gctccgtcgt accccaacgc gctttccccg gcgccatggc caggctggcg 120
ctggtgctcc tctgctgct ggccgtggcg gcgtccgcgt gggccggcgc cggcgcgagc 180
cacctcgatc tgggcttggg ctctctctac tccggggacc gccggcggga gtgccgcggc 240
acggtggccg agtgccctgga cgagtcagat ggccctggacc tggaggcagg gcccgcgtag 300
gtggagtccc accgacgagc gctctacggc gcggggggcg ggtacatcag ctactgcgcg 360
ctgcggcagg acaacgtgcc ctgattccga cgcggcgcca gctactacaa ctggcgcccc 420
aggggccaag ccaac 435

<210> 2956
 <211> 412
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-A6

 <400> 2956

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 tattccacag tgctcacttg ctccctagtg cattattcca cagttcctcc caccagttac 120
 ttcaatgggc ttggaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc 180
 gagcgctta caacaaccaa ttgccaatt gcaacaacaa tccttggcac atctaaccct 240
 acaaaccatt gcaacgcaac aacaacaaca acaacagttt ctgccatcac tgagccacct 300
 agccgtgggtg aaccctgtca cctacttgca acagcagctg cttgcatcca acccacttgc 360
 tctggcgaac gtagctgcat accagcaaca acaacagctg caacagttta tg 412

<210> 2957
 <211> 280
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-A8

 <400> 2957

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 cgcgtaggag atggaccgcc cttccggcac atcgtaggag cgcttcccc gcgttcggat 120
 ccgcgagctc aaggacgact acgccaagtt cgaactccgc gacaccgacg ctagcatggc 180
 caacgccctc cgccgcgtca tgatcgccga agtcccaact gtcgccatcg atctcgtaga 240
 gatcgagggtt aactcctccg tcctcaacga cgagttcatc 280

<210> 2958
 <211> 78
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-034-Q1-K1-A9

 <400> 2958

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agctccactg agcgcggt

78

<210> 2959

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B1

<400> 2959

cgcgctctccg gtcccggtccg taataacact gatccgatcc acgccggccg gcgatggggc 60
tgatcaagtc cagggcgacc gtgtgcgcgc tctcctggc gctgctcctg ctctcacact 120
acgacggcgg gacgacgacg acgatggtgg cggaggcccg ggtgtgcatg ggcaagagcc 180
agcaccactc gttcccttgc atctccgacc gcctctgcag caacgagtgc gtcaaggagg 240
acggcggttg gaccgccggc tactgccacc ttcgctactg caggtgccag aaggcgtgct 300
aagcaaagct cttcaaacac ctttggttg ccagaactga actctagtag tactaagtaa 360
cacccttggc tagctgtgca caacctacgt accgtgcatg catgtaatgt ggtgtcatgt 420
aac 423

<210> 2960

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B10

<400> 2960

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ttgtgcttcc ttatgctcct tggctcttct gcaagtgtg ctaccgcaac cattttccca 120
caatgctgac aagctcatat agcttgcttt cttcccccat acctctcacc agcggagtct 180
tcaggatgcg aaaaccaat tcttcaacc tacaggatcc atcaggctat cgcacccggc 240
attttacctt tatcaccctt gatcctcaa caacgcgtag acctattcca gacattacct 300
ttggtgcact acttcggcca gagcatgcag gcacagctgc ttcctctact tgcgctaaga 360
aaccttgatg cctactacta gctgcagcgg actc 394

<210> 2961
 <211> 305
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B11

<400> 2961

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 atggctggcc aagatattag ccgctccttg cgcttcttgc ccttttagtg agcgcaacac 120
 atgcgttcat tattccacag tgctcacttg ctcttagtgc cattattcca cagttcctcc 180
 caccagttac ttcaatgggc ttccaacatc cagccgtgca agcctacagg ctacaactag 240
 cgcttgccgc gagcgctta caacaaccaa ttgcccaatt gcaacaacaa tccttggcac 300
 atcta 305

<210> 2962
 <211> 406
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-034-Q1-K1-B12

<400> 2962

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 ggctgtccg acctgggctc agcgcgcgcg cccctgggca gcaagccgca gcgggagttc 120
 gactacttcg cgctctccct ccagtggccc ggcaccatct gcgcctccac ccgccactgc 180
 tgcgccacca acggctgctg ccgctcggag cctctccaga cgttcacgat ccacgggcta 240
 tggccggact acgacgacgg gacctggccg tcgtgctgcc gccgcacca attcgagatg 300
 gacaagatat tgccactgaa ggaggtgctt gacaagtact ggccgtnctt ctactgctcc 360
 aaatctggaa catgcttcag cggcaaggga ctcttctggg ctcacg 406

<210> 2963
 <211> 368
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-034-Q1-K1-B2

<400> 2963

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gccaagatat tttccctcct tatgtctcctt gctctttcta catgtgttgc taacgcgaca 120
attttccctc aatgtctaca agctcctata gcttcccttc ttcccccata ccttccatca 180
attatagctt cagtatgtga aaaccagct tttcaaccat ataggcttca acaagcaatc 240
gcagcaagca acataccttt atcgcccttg ttgtttcaac aatcaccagc cctatctttg 300
gtgcagtcac tggtaaaaac catcagggca caacagttgc agcaactcgg gctacctgtg 360
atcaacca 368

<210> 2964

<211> 80

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B3

<400> 2964

aagaaaaaaa aaaaaaaaaa aaaaaatata aaataaaaaa aaaaaaaaaa aaaaaaaagg 60
aaaggggtcca acgatctaata 80

<210> 2965

<211> 314

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-B4

<400> 2965

cacgtctcgt cggaccggcc cccgggctgc accagggggc ggtactggct gggcttgtcg 60
gggacgtctt gcgccgggc gctttacggc ctgcctctgc cgctgggtgga gctcgcgtac 120
aggcgcgccg cgggcggtgg ccgcgccgtg acgtacgcgc tgggtgggtgga gatgcagctg 180
gtgatggggg tcttcgccac cggcttctgc acggtaggca tggctcgtgaa caaagacttg 240
caggcgatcc cgaggaggc gaggcagtag gagcatgcgt agggcccgga ctacatggtg 300
ctgtcgtggg cggc 314

<210> 2966
 <211> 349
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-034-Q1-K1-B6

<400> 2966

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 ttttgctctc ttatgctcct tgggtctttct gcaagtgtctg ctacggcgac cattttcccg 120
 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca tcagttacct 300
 ttggtgcatt tattggcaca naacatcagg gcacaacaac tacaacaac 349

<210> 2967
 <211> 325
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-034-Q1-K1-B9

<400> 2967

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 tcctcgctct cctggctctc gctgcgagcg ccacctacac gcatacaagc ggcgggtgcg 120
 gctgccagcc accgacgtcg gctcatctac cgacgncggt gcattctgcca ccttcgggtc 180
 acctgccacc tacggcgcat atcccaccgg cgggtacaact gacgccgacg gtgcacctga 240
 caccgacggt ccatgtgccg tcgacagtta atatgccgac gtcagcatgc cactacgcta 300
 ctcaaccgca ccggactnaa gctga 325

<210> 2968
 <211> 309
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C1

<400> 2968

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 ccctgttgcc ttcttgacac aacaacagtt gttgccgttc tacctgcacg ctgcgcctaa 120
 cgctggcacc ctcttacaac tgcaacaatt gctgccattc aaccaacttg ctttgacaaa 180
 cccaacagcg ttctaccaac aacccatcat tgggtggcgcc ctctttttaga ttgcttatga 240
 gttatacttc aataatgaag ttttttggat gatgtttgtg gcttcccaga aataagaaag 300
 tacattttct 309

<210> 2969

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C10

<400> 2969

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 aacaaatgcg ttcattattc cacaatgctc acttgctcca agttccatta ttacacagtt 120
 cctcccacca gttacttcaa tgggcttcga acaccagct gtgcaagcct ataggctaca 180
 acaagcaatt gcggcgagcg tcttacaaca accaatttcc cagttgcaac aacaatcctt 240
 ggcacatcta acaatacaaa ccatcgcaac gcaacagcaa caacaattcc taccagcact 300
 gagccaccta gccatggtga accctgccgc ctacttgcaa cagcagttgc ttgcatcaaa 360
 cccacttgct ctggcaaacg tagttgcaaa ccagccacaa caacagctgc aacagtttc 419

<210> 2970

<211> 227

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C12

<400> 2970

gttcaagggc tccacgtcc tcatcaacgg gatggtgacg gaaggggtccg acgagtgggc 60
 ggtctacggc gggactggag cgtttgcat ggccaccggc gtcacagaa ggaagaacct 120
 ttttgccggt tgcggtgaca gttgccggaa cttcgaccag cttaacattg aagtgttctg 180
 gccggtgttc gggttaacgg aacaaccggc caaggaccac caggatt 227

<210> 2971
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C2

<400> 2971

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 acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag ttacttcaat 180
 gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg cggcgagcgt 240
 cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa caatacaagc 300
 catcacaacg caacagcaac aacagttcct accagcactg agccacctag ccatggtgaa 360
 ccctgccgcc tacttgcaag agcagctgct tgcattcaac ccacttgctc tggcgaacgt 420

<210> 2972
 <211> 419
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-C3

<400> 2972

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 caattttccc tcaatgctca caagctccta tagcttcctt tcttccccca taccttccat 180
 caatgatagc ttcagtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa 240
 tgcagcaag caacatacct ttatcacctt tgttggttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cacagcagct gcagcaactc gtgctacctg 360
 tgatcaacca agtagctctg gcaaaccctt ctccctactc tcagcaacaa caatttctt 419

<210> 2973
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-A5

<400> 2973

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ttgatectcc agcaacgggc agccctatta caggagatac ctttgggtcca ttggtggca 120
caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc tgcatactct 180
cagcaacatc agtttcttcc attcaaccaa ctgtctgcat tgaactctgc tgcttatttg 240
caacaacaat taccattcag ccagctagct gctgtctacc cccagcaatt tctaccattc 300
aaccaactat caccattgaa ctctgctgct tatttacagc aacatcaact actaccattc 360
agccaactag ctgatgtgag ccctgctgcc ttcttgacac aacaacagtt gttgacgata 420
tacctgcacg ctatg 435

<210> 2974

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H10

<400> 2974

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gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc 120
tcttatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 420

<210> 2975

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H11

<400> 2975

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gccacgttca cgcatacaag cggcggtgctc ggctgccagc caccgccggc ggttcattcta 120
ccgccgccgg tgcattctgcc acctccggtt cacctgccac ctccggtgca tctcccaccg 180
ccggtccacc tgccgccgcc ggtccacctg ccaccgccgg tccatgtgcc gccgccggtt 240
catctgccgc cgtcaccatg cactaccct actcaaccgc cccggcctca gcctcatgcc 300
cagccacact catgcccgtg ccaacagccg catccaagcc cgtgccagct gcagggaacc 360
tgcggcggtt gcagaccccc gatcctgggc cagtgcgtcg agttcctgag gcatac 415

<210> 2976

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H12

<400> 2976

accaagcggc cgcgcagaac cgccggaaaa agagagaccg acccgccggc agatcccaag 60
ctcaccggag agggggaaga gggcgaccga agggggcgat gggtttcatc atggacttcg 120
cggagaatct gatcctccgt ctgatggagg acccggaaca gcgcgaccag gttcggcggg 180
agcatgtcta caagatgaag gagcgggtgc agcgactaa ggcggcggtg agcctccctc 240
tgcgcccccta cggtttcttg accttcgacc gtttcaactc gcagctctcc tgggatcccc 300
agatcagcca ggccgccggc cgtcgggacc cctacgacga cctcatcgcc cgccactctg 360
gctcgcgcgc gtcttcctga acaccggttc cgatac 395

<210> 2977

<211> 361

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H2

<400> 2977

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acaactgtca cgcgcagggt accaacaatga tattgtgggg ctcttcttga agaacaatgg 120
aatgagaaa ctgggtccaa taagcaatgc tcatgttggt cagctgata tgaactagta 180

tggaacaatg gatgataaac atattcaatt ggcagaacta tcagcagctg ctgctgactt 240
 ccccaagcac aggcaaaatt gtgacaatgc cagcattcct tggaccaaaa atatatcctg 300
 acttcatggc aaaagatgat gctatctgct atagatcaga taagatcctt ggaaggcttt 360
 a 361

<210> 2978

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H3

<400> 2978

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 tggtagtttt agtggttggg cttgacttcc tactattcag aaacacagta ccgagaagtc 120
 tttagggtggg gtcaaagatg gtgtcgctga agttgcaaaa ggcgcttgcc gcgagctacc 180
 tcaagtgtgg gaaaggcaag gtgtggcttg acccaaatga agttagtgag atctccatgg 240
 caaactcccg ccagaatatc cggaagtggg ttaaggatgg gtttatcatc aagaagcctc 300
 ataagatcca ctctagatcc cgtgcaagaa gggcacatga cgccaagcat taagggacgc 360
 cact 364

<210> 2979

<211> 301

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H4

<400> 2979

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 cagtttgccg ctaaccccg caccctgtta cagctacaac aattggtgcc ctttgtccaa 120
 cttgctttga caaaccagc agcctcctac caacaacaca tcattggtgg tgccctcttt 180
 tagattgatt attagttgta attcaataat aaagtttttt ggatgatgta tgtggccaac 240
 cagaaataag aagttacatt tccagattct aatgtgatat tggctctcaa ggggtgttca 300
 t 301

<210> 2980
 <211> 338
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H5

<400> 2980

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 gtggaggggc gatggcggcg gctgatgtgg agtaccgttg cttagtcggc ggacttgcct 120
 gggccaccag caacgagtcg ctggagaatg ccttcgcctt ctacggcgag atcctcgact 180
 ccaaggtcat caccgaccgg gagacgggga ggtcccgcgg cttccgcttc gttaccttct 240
 acttcgagaa ctccatgctc gacgctatcg agaacatgaa cggcaaggag ctcgacggcc 300
 gtaacatcac cgataaccag gccattccc gtggcggc 338

<210> 2981
 <211> 355
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-033-Q1-K1-H6

<400> 2981

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 tctnnnttgg tgccagtgcg attgggtacc aaacnennat cagtggcacc cagcagcntn 120
 ngcagcaacc ctcgtcacct acctgtgnnn atcaaccann agtagnnctc tggcananna 180
 cctttctcgc ctaactctca gncaaccaac caatnnttct tccatttcaa cccaactgg 240
 tctacnnact gaaccennntg ctgcttaaat ttgcagcaac cannactatt acnennattc 300
 agccagctta nngctactgc nntactcnn tcagcaacaa ccaactnnnt cttec 355

<210> 2982
 <211> 293
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H7

<400> 2982

cagcaagcaa catagaaagt agaatccatt agcaacaata gagcaacaat ggcgaccggg 60

atattttccc tccttatgct ccttgctctt tctacatgtg ttgctaacgc gacaattttc 120

cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180

gcttcagaat gtgaaaaccc agctcttcaa ccatataggc ttcaacatgc aatcgcagca 240

cgcaacatac cttaatcgcc cttggtgttt caacaatcac cagccctatc ttt 293

<210> 2983

<211> 360

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H8

<400> 2983

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tatgatgttg tgccgtgtta taatggggaa cgtagaaata gttcacctg gatctaagca 120

gcaccaacct agtagtgact attttgatag tggagtagat gaccttaaaa acccacaaca 180

ttacattgtg tgggatatga atctgaatag gcacatctat cctgagtttg tagtcaccgt 240

caaattgcct tctaaaacaa aagattactt cgtatcgcaa gaagactgcc agaattcatc 300

tgatctgtca ctggtgttga attctagttc acccgactgt atttcagaag agatgaacct 360

<210> 2984

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-A1

<400> 2984

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agggagtcaa aatcttactg tgaaaacgct ctcaaaattt accaaaaacc tattccaggg 120

acttctctgg aagaaattgc cactggttta actgatgttt cagccatata tgagacgatg 180

aatgagcatg agcaagcact caagttactt cagaaggcct taaaaatgta caacaattct 240

gctggccaac agagcacaat tgctggaatt gaggctcaga tgggtgtctt gcactatatt 300

ttgggcaatt atggcgagtc atatgattcc ttcaagagtg cgattgcaaa gctccgcacc 360
tgtggtgaga aaaagtctgc cttcttcgga attgccctga accagatggg attggcat 418

<210> 2985
<211> 399
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-034-Q1-K1-A11

<400> 2985

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acttccccctc aactgctta agtaaaatca gattttgcat taaaacaggc ggcaaaaggc 120
tggctgcacg aacataccgc ctctccttat gcaacacatt ggccgagct cgtgtttggc 180
tttccaataa tggtcagatt ctacaccttg aattgcctat ggcacaacga agaatacagaa 240
agagcaaggt ttaaacacca tagagccttc gcctatggtc cagcgggtggg caataaagtg 300
agcccaagat gccgnctagc atgggtctggg atcagcctgt tgatgagctc cggggaggca 360
tttgctagtt cctgttttaa gctgaacagt ggaggaaat 399

<210> 2986
<211> 421
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-A12

<400> 2986

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ccttgetctt tctgcatgtg ttgctaacgc gaccattttt cctcaatact cacaagctcc 120
tatagctgcc cttcttcccc cataccttcc atcaatgacc gcttcagttt gtgaaaaccc 180
agcccttcaa ccctacaggc tccaacaagc aatcgcaaca agcaacttac ctttatcacc 240
cctgttcttt caacaatcgc cagccctatc tttggtgcag tcattggtac aaaccatcag 300
ggcacaacag ctgcaacaac tcgtgttacc agtgatcagc caagtagctc tggcaaacct 360
ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta cactgaaccc 420
t 421

<210> 2987

<211> 324

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-A2

<400> 2987

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gggttggttt tttttttttt tttttttttt aaaaagggcc ggatcaaaaa attcagtcctt 120
cagttttttt ttggagtttg aatatccagg gggggacctt taaaaaacat ttttaacata 180
tcaaatttta cggattccca agggatgata accccttttt ttggaccact ttgccagttg 240
acaacaatac attcgggttc tggaaaggaa tcaatcaaag gtacaattgg gtcttttacc 300
aaaatagacc atttttaaag gcaa 324

<210> 2988

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-034-Q1-K1-A3

<400> 2988

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atgtcacaaa gctcctatag ctctctttct tccccatac ctctcaccag cgggtgtctt 180
agtatgtgaa aaccgaattc ttcaacccta caggatccaa caggcaatcg cagcaggcat 240
cttaccttta tcacccttgt tcctccaaca accgtcagcc ctattacagc agttaccttt 300
gggtgcatttg ttggcacaaa acatcaaggc acaacaacta caacaacttg tgctaggaaa 360
ccttgcctgc tactctcagc aacagcagtt tcttccattc aaccaactgg ctgcattgaa 420
ctc 423

<210> 2989

<211> 347

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-034-Q1-K1-A4

<400> 2989

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tagtttccct ccttatgctc cttgctcttt ctgcatgtgt tgctaacgcg acaattttcc 120
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cttcagtatg tgaaaaccca gctcttcagc cctataggct ccaacaagca atcgagcaa 240
gcaacatacc tttatcacn ncttgtgttc aacaatcgcc agccctatct ttgggtgcagt 300
cattggtaca aaccatcagg gcacagcagc tgcagcaact cgtgcta 347

<210> 2990
<211> 361
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-H1

<400> 2990

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ccatctgcag gggatgcgat acggaacgcc atgcgcattg gcgtgcatcg gatgactgat 180
cgataccata atcgagaca agaccgggtt tcacattggc ctctacgcg tatactgtca 240
cgacgatgaa ccgttgtgac actagaaggt ggacaccaca ttgctgtgtt ccgtgcaggg 300
gttgggaccg accatgtacg cacagaagct gcagcaactc atgatacctg agctctacca 360
a 361

<210> 2991
<211> 319
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F5

<400> 2991

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ccttatgctc cttggccttt ctgaaagtgt tgctacggta accatttact ctcaatgctc 120
 acatgctcct atacctttaa tcattgctcc attacctctt accaacaact gtacttcaat 180
 gaagcgatac acgcaccagc taacattacc agatgcaata tgacctatta aaggatatctt 240
 acatcatcac tcttgtccat taaaactgac ctcttgcac agattgacct taacatcatg 300
 ggacagcaac tacaataac 319

<210> 2992

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F6

<400> 2992

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 gccggcgccg gagcgcgggc ttcaaggggg tctgcatgtc cgaccacaac tgcgcgagg 180
 tgtgcttgca ggagggtac ggcgggcgca actgcgacgg catcatgcgc cagtgcgaagt 240
 gcatcaggga gtgctagcta gctaggctct aggatctagc aagctagcta tatcggcctt 300
 taattaaatt aataaggatc gacgtcgtgg ccggtcgcta aatatgtact actatacgtc 360
 tacactaca 369

<210> 2993

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F7

<400> 2993

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 tattaccctc cttgcgctgg tgcgctttat gagcgcatca agcgtcatta ttccacagtg 120
 ctcaattgct cctagtgcc a ttatttcaca gttccttcca ccagttactt caatgggctt 180
 cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcgggca gcgccttaca 240
 acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac aaaccattgc 300

aacgcaacaa caacaacaac aacagtttct gccatcactg agccacctat ccgtgggtgaa 360
ccctgtcacc tacttgcaac agcagc 386

<210> 2994
<211> 220
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F8

<400> 2994

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atcatgggtga ggggactgag taatatggac atgtatcttg cgtattgtgc aatgaatgtg 120
ttggctgttg ggtcgcttgc ctacgcattc tgtaagattg cagttaccat taggaactga 180
actcaactcg actgaattaa tatcatttgg ctctactcgt 220

<210> 2995
<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F9

<400> 2995

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gggtgctaac ctcacctatg caagctagct tgttgacca atggcacttg cagagtcatt 120
accagctgtt ggaccttaag aatgcggcgc tgttactgct gcaaattgctg accgcctcag 180
gacaactggc taaagaatat ccgtgacact attagactct gcagacatta tatcgtgcac 240
tgctgtacaa tgaatatctt acgtagctaa tggcctgaag ggagtggaca ggagcatgcc 300
cacatcagat agtccaagat gcagttgcaa agaatatgaa tctcaagttc tttgaggtgc 360
ctactgggtg gaaatccttt gcgaatttga tggatgctgg aatgtgctca at 412

<210> 2996
<211> 283
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G1

<400> 2996

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gacatgtaca tgctacaaac acgctcacgc tcacacaaac ttactagtag cagagcacgc 180
gcgcggttag ctctggagg cagatgccgt atccggcggg gcattcaggc ccggtgccga 240
cgagagacc ctgcgcggcg acgaacgctg ggcttcgcg gct 283

<210> 2997

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G11

<400> 2997

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gttatgctcc ttggtctttc tgcaagtgt gctacggcga ccattttgcc acaatgctca 120
caagcttcta tagcttgctt tcttcccccg tacctctcac caacggtgtc ttcggtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catgttacct 240
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tcattggcac aaatcatcag ggcacatcaa ctacaacaac ttgtgctagc aaaccttgct 360
gactactctc agcatcagca gtttcttaca ttcagccaac tagctgcatt gaactctgct 420
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<210> 2998

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G12

<400> 2998

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180

gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgttgttt caacaatcgc cagccctatc ttgtgtgagc 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattc 417

<210> 2999

<211> 324

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G2

<400> 2999

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aggttgetca cgctgcccac tgtgctcacc attggccggc tcgtgctgt gctcttctg 180
atcagcactt tctacatgga ggggccatgg gcagctatgg ccacaacagg catcttctt 240
gctgccgcag tcaactgattg gctagatggg tatattgcta gaaagatgca gctaggaaca 300
cctttttgtg catttcttga tcct 324

<210> 3000

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G3

<400> 3000

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tccctcaatg ctcaacagct cctatagctc tccttcttcc ccatacctt ccatgaacga 180
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caagcaacat acctttatca cccttggtgc aacaatcgcc agccctatct ttggcgagc 300
cattggtaca aaccatcaag gcacagcagc tgcagcaact cgtgctacct gtgatcaacc 360
aagtagctc 369

<210> 3001
 <211> 372
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G4

<400> 3001

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caaggcatat gccaaaggag aaaatatcgg tgatgtcact gctaaaggag aaagtgttgg  180
aaacattgct gatctgttgg gaactggaat gagcattcta atctctaaaa gcaatccatc  240
actggtaact tcatttgcct tcttgtcgtg cggatatctt ctcaagtcat atcacgaggt  300
gagatctatt gtactgaata ctctgaatac ggcaagggtc actgtggctg tggattcttt  360
catcaggact gg                                     372
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<210> 3002
 <211> 354
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G5

<400> 3002

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cgctcactga ctgacgagca gatctcgag ctgttggtcc acgcttccgt agatgaacac  180
tggtctgact gtctctgac gccgttcggc gagtctatcg gctcctacag gctattggac  240
caggcaacat acatttacia ccattactgc cagatttacg aggcttatgc tcgcagctat  300
cattagctct taccatccaa ggtcagcgac tgttcgacat ctctacctgt gatc       354
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<210> 3003
 <211> 366
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G6

<400> 3003

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cccacctccg ccctctctc ctccaggggg atcggatacg ccacaggctg cgcgatggtg 180
ctgtgggtct tcggctacgg ctccctcacc tggaaccccg gcttcgactt cgacgacaaa 240
atcctcggct tcatcaaggc ctacaagcgc acctttaatc tcgcttgcat tgaccacaga 300
ggcacaccgg agcatccggc gaggacctgc acgcttgaaa ccgacgacga ggccatatgc 360
tggggg 366

<210> 3004

<211> 255

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G7

<400> 3004

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ccaaaagaag ctggaaatcg atgacgacca gaagctacgt gccttttatg accggaagat 180
atcccaggag gtcagtgggt atgctctggt gaggagtcca cggggtatgt cttcaagatc 240
atgggtggat gtgac 255

<210> 3005

<211> 362

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-033-Q1-K1-G8

<400> 3005

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gcatatgcc aaggagaaaa tatcggatgat gtcactgcta aaggagaaag tggttgaaac 180
attgctgata tggttggaac tggaatgagc attctaattc ctaaaagcaa tccatcactg 240

gtaacttcat ttgccttctt gtcgtgcgga tatcttctca gttcatatca cgagggtgaga 300
tctattgtac tgaatactct gaatacggca aggttcactg tnggctgtgg attctttcat 360
ca 362

<210> 3006

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-G9

<400> 3006

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caccagcggg gtcttcagta tgtgaaaacc caattcttca accctacagg atccaacagg 180
caatcgcagc aggcattcta cctttatcac ccttggttct ccaacaaccg tcagccctat 240
tacagcagtt acctttgggtg catttggttg cacaaaacat caaggcaca caactacaac 300
aacttgtgct aggaaacctt gctgcctact ctcagcaaca gcagtttctt ccattcaacc 360
aactggctgc attgaactct gctgcttatt tgcaacaaca actaccattc agtcagctag 420
ct 422

<210> 3007

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F4

<400> 3007

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ggcggctgcg gctgccagcc accgccgcg gttcatctac cgccgcgggt gcatctgcc 180
cctccggttc acctgccacc tccggtgcat ctcccaccgc cgggtccacct gccgcgcgcg 240
gtccacctgc caccgccggg ccatgtgccg ccgccggttc atctgccgcc gccaccatgc 300
cactacccta ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgctgc 360

caacagcc

368

<210> 3008

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B4

<400> 3008

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cggcgggctgt ggctgccaga caccaccgtt tcctctaccg actgcgttct atatgccgcc 180
tacgtttctat ctgccgacgc agcagcagcc gcagccatgg caatacccca ctcaaccacc 240
gcagctaagc ccgtgccagc agttcggatc ctggcggcgt cggcagcgtc ggagagccgt 300
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<210> 3009

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B5

<400> 3009

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tcacaaatgc tcacaacaat acctctctcc agtgatagcc gcgagatttg aatacccatc 180
tatacaatcc tacaggctac aagaggccat cacagcaagc atcttacggg cgtttagcatt 240
gaccgtccaa caaccatatg ccctattgca acaaccatcc ttagtgaatc tgtatctcca 300
aagaatcaca gcacaacaac tacaacaacg gttgcttcca acaattaatc aagtagttgc 360
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ggtg 424

<210> 3010

<211> 425

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-B7

 <400> 3010

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 ggaataacac caacgattgg ttctgctcat tatctactgc aacatgctaa agagcaaaat 180
 gacaacaaac taatggaaaa cgtaattcat gtactatcga gaaatttctt accgctgcaa 240
 ccaggcacag ctgatatagg cttcagtatc tgttataatg ctgatagatg ggatttactc 300
 tcaaaatacg cggagagatt tgataaggca ggtgtcaaac tgcacgagc tgcatttgac 360
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 ctaag 425

<210> 3011
 <211> 428
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-015-Q1-K1-B8

 <400> 3011

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 ggctgccagc gccagcgccg ggacctcctg cgtgccgggg tgggccatcc cgcacaaccc 180
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 gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg ccggggcccg acgcgcagct 360
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 caccctcg 428

<210> 3012
 <211> 432
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-C1

<400> 3012

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tgaagtcagt agtcgtatct ggcagtggca gcacagcgcga ccatggaatg gctgagctgg 180
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ggcgttgatc ttgtgggttaa ggatcctaata ggcgctcaag tccgtgattc tcgagataag 420
actagtgata ag 432

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<211> 521

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-C10

<400> 3013

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cagccagctt anngtgatg tganngccct gttgcnnctt cttgacacca nnacaacagn 240
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accaactnng caacaattgg ctgcnnnatt cannaccaac ttgggctttg acccaaacc 360
annacagcgt tctaaccana caacnnccat cannttggtg gtgggcccctc tnnttagaat 420
tgggcttatg agttattacc cttcaataat ggannagttt tttgggatga aatgtttggt 480
ggctttttcc cagannnata agaaaaggta caaaatttct a 521

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<210> 3014

<211> 294

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-C11

 <400> 3014

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 aacaattgct gccattcaac caacttgctt tgacaaaacc aacagcgctt taccaacaac 180
 ccatcattgg tgggtgccctc ttttagattg cttatgagtt atacttcaat aatgaagttt 240
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<210> 3015
 <211> 432
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-C2

 <400> 3015

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 gggcacagca gctgcagcaa ctctgtgtac ctgtgatcaa ccaagtagct ctggcaaacc 180
 tttctgccta ctctcagcaa caacaatttc ttccattcaa ccaactgtct aactgaacc 240
 ctgctgctta tttgcagcat caactattac cattcagcca gctagctact gcctactgtc 300
 agcaacaaca acttcctaca tttaaccaat tggccgcact gaaccccgct gcttatttgc 360
 agcatcacat actactacca tttagccagc tagctgcagc aaaccgtgct ttcttcttga 420
 cacagcatca gt 432

<210> 3016
 <211> 435
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-015-Q1-K1-C3

 <400> 3016

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 ggagcatggt caggggctac gaggaggcca tgccgntctt ggagaaaggc tgggtggccat 420
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<210> 3017

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-C4

<400> 3017

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<210> 3018

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-C5

<400> 3018

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<210> 3019
 <211> 430
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-015-Q1-K1-C6

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<210> 3020
 <211> 341
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-C7

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atttccaaat tctaattgtgc tattggcctg caaggggtgtt cgataattat tttccctaag 240
 attgggaagc aagctataaa tcatccttat agtgtgatac ccgattcatt gagaattata 300
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<210> 3021

<211> 430

<212> DNA

<213> Zea mays

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<400> 3021

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 gattccacaa gagtttgcag catcattaac tggagggtca tttgaagagt cacggatgct 180
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<210> 3022

<211> 529

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-A10

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<210> 3023

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A11

<400> 3023

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<210> 3024

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A2

<400> 3024

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acagtttttt atgttgagat tggtaggtac ggagaagtta gacctctagt gctattggga 360
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<210> 3025

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A3

<400> 3025

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ttttgcttcc ttatgtctct tgggtctttct gcaagtgtctg ctacggcgac cattttccca 120
caatgtctac aagctcctat agcttccctt cttcccccggt acctctcacc agcgggtgtct 180
tcgggtatgtg aaaacccaat tcttcaaccc tataggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacaacag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca 440

<210> 3026

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A4

<400> 3026

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ccaccaatga tgggttggtg gtagaacgct gctgggtttg tcaaagcaag ttggttgaat 120
ggcagcaatt gttgcagttg taagagggtg ccagcgttag gcgcagcgtg ctggtagaac 180
ggcaacaatt gtggttggtg caagaaggta gcagggctca caccagctag ctggctgaat 240
ggtagtagtt gttgctgctg taaataagca ggagagttca aagctgtcag ttggttgaat 300
ggaagaaatt gctgggggta ggcagcagat agctggctga atggtagttg ttggttggtg 360
aaataagaag cagagttcaa tgcagctagt tggttgaatg gaagaaactg 410

<210> 3027

<211> 301

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-A5

 <400> 3027

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 accaggctcg tcgctgcgat cggtgtctac ctgcgccaac tttagtctgg tttcagcagc 120
 aggacgggta ctacagatat gctagataaa ggtcttatat atgtcatatg acctatcatg 180
 gtcttatatg ttcgatcgtc gtcgtgtctg tatgtacata catggttgtc aaataaagct 240
 ctttgcattc tgataaaact tgtgctgtaa gcacgctttt tcaaggcaca tcataatatc 300
 c 301

<210> 3028
 <211> 407
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-A6

 <400> 3028

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 ttcttccatg agtctcgaga ttcagttgac tgggtgtttg tcgatcatgc ctcatatcac 120
 acacctggaa atatatatgg agataagttc ggtgcttttg gtgatcatca gttcagatac 180
 acaactccttt gctatgctgc atgtgaggct cctttgcacc ttgaatcggg aggatatatt 240
 tatggacagc atagcatggt tgttgtaaat gattggcatg ccaactctagt gccagtactt 300
 cttgctgcaa aatatagacc atatggcgtt tataaagact cccgcagcat tcttgtgata 360
 cataatttat cacatcaagg tgtacagcct gcaagcacat atgctga 407

<210> 3029
 <211> 393
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-015-Q1-K1-A7

 <400> 3029

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cagggcacaa caacgacaag aacttgtgct agcaaacctt gctgcctact ctgagcaaca 120
gcagagtgtc tacattcaac caactacctg cattgaactc tgctgcttat gtgcaacatc 180
aacaactacc attcagacag ctatctgctg cctacccccca gcagtgactt gcattcgacc 240
aactgacagc attgaactct actgcttatt tacagcagca acgactacta ccattcagcc 300
agctagctga agtgagccct gctaccttgt agacacagcc acacaagctg tcgaactacc 360
agcacgctgc gcctaacgct gacactatat tac 393

<210> 3030

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A8

<400> 3030

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gtgcaagccc ttgagcgtgc tgatgagagc caaaagcgca ttctatttga aaattatggc 120
aagaaagatc cagcctgtgt ggcaaaagtg aagaacctct acaaagaact tgacctagag 180
gcggtatttc aggagtacga gaatgagagc tacaagaagc tgattgcaga cattgaagcc 240
cagccaagca ttgcggttca gaaagtgtc aaatccttct tgcacaagat ctacaagagg 300
cagaagtagg gtgctcttgg ataaacgagc tcaggagtcg ttactccttc gcatgcttga 360
cataaccgga cttcttcacc tggttgctct agtatgatgt ggagcgtcta gttaaaaaaa 420
atcgatgta 429

<210> 3031

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A9

<400> 3031

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gtccttgggt ctttctgcaa gtgctgtctac ggcgaccatt ttcccgaat gctcgcaagc 120
tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180

cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 420
 tttgcaacaa caacaacta 439

<210> 3032

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B1

<400> 3032

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 ttcttcctcc ttgggctacc tgatgctgtg taggatctgc cagcaggaag aggacggagg 120
 gcgtgcgacc atggagtccc cttgtggatg ttccggctct ctcaagtacg ctcacaggcg 180
 atgtgtgcag agatggtgtg atgagaaggg gaccgccatc tgtgagattt gccttcagaa 240
 tttcgagcca gggtagacaa tgcctccaaa gaaaactccg gtggttgaaa cggcgggtcac 300
 gatcagtga cagcaggaca tgcaatcttt ggaatctcgg gagggcttga gtgggggtgc 360
 aggtacacc aggtgctcct acaccgcaga tcaatgcgcc acatggtgcc ggctcgtggc 420
 gatcacgttc accattat 438

<210> 3033

<211> 205

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-015-Q1-K1-B10

<400> 3033

cgagaccaac aangcaacat angaaaggtg gaatacagtn agccaactaa tagagcaacc 60
 caatggcggn gccaaagatna ttggcgcgca tccttatgct nnccttgctc tgttnnctgc 120
 atgnnnngttg ctaacngcng nnaccatttn ntccctcaat acctcnna agctcncta 180

tagnnctgcc cnnttcttnn ccccc

205

<210> 3034

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B11

<400> 3034

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tatgtggacg atcaggaagg tggcgacgcc gcaggtggcc gtctctctgc tgctctcat 120
cgtcgttgcg caggaggcgg cgccgttggc ggaggcgcg gtgtgccggc gccggagcgc 180
gggcttcaag ggggtctgca tgtccgacca caactgcgcg caggtgtgct tgcaggaggg 240
ctacggcggc ggcaactgcg acggcatcat gcgccagtgc aagtgcacga gggagtgcta 300
gctagctagg ctctaggatc tagcaagcta gctatatcgg cctttaatta aattaataag 360
gatcgacgtc gtggccggtc gctaaatatg tactactata cgtctacact acatgcaata 420
atgcaccaca tgtacgcg 438

<210> 3035

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B12

<400> 3035

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ggtgcacetc ccaccgccgg tccacctgcc gccgccggtc cacctgccac cgccggtcca 120
tgtgccgcgg ccggttcacg tgccgccgcc accatgccac taccctactc aaccgccccg 180
gcctcagcct catccccagc cacacccatg cccgtgccaa cagccgcacg caagcccgtg 240
ccagctgcag ggaacctgcg gcgttggcag caccgccatc ctgggccagt gcgtcgagtt 300
cctgaggcat cagtgcagcc cgacggcgac gccctactgc tcgcctcagt gccagtcggt 360
gcggcagcag tgttgccagc agctcaggca ggtggagccg cagcaccggt accaggcgat 420
cttcggcttg gtctccagt 440

<210> 3036

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-B2

<400> 3036

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ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc ctatagcttc 120
ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc caattcttca 180
accctacagg atccaacagg caatcacagc tggcatctta cctttatcac ccttggtcct 240
ccaacaatca tcagccctat tacatcagtt acctttgggtg catttattgg cacaaaacat 300
caaggcacia caactacaac aacttgtgct agcaaacctt gctgcctact ctcagcaaca 360
gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 420
acaactacca ttca 434

<210> 3037

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-015-Q1-K1-A1

<400> 3037

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tgttattcct agttctgggc gtggtggaat gogaattcaa ttttcaaaga atccctttgg 120
gcgaaggaag gattcagctg ctggccttgc gagcgttcta aatggggctc ctgcaaattg 180
attgcagcct gaggggatgt atcttgaact ttagcatgcc atcatggatt tcatactacc 240
acatcttatt tatgatctgc atacttctgc tgaatgcacg ctctctcacg tggcatcatc 300
atcttcattt ggtggagtat ctgggacatg atcatcatct atcatcttta ttaggtggag 360
tttcaggggc atgatcatca tctggctgac attgcattgt caccaaaaca tgcttgtgtt 420
actttttttt acattatct 439

<210> 3038

<211> 307
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-G4

 <400> 3038

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 tcacaagctc ctatagctgc cctttttgac ccataccttc catcaatgac cgatctagta 180
 tgtgaaaacc gcacccttta accctacagg atccatcaag caactctaac atgcaactta 240
 cctttatcac acctgttatt tcaacaatcg ccagtcctat ctttggtgca atcatctgta 300
 caaacca 307

<210> 3039
 <211> 285
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-G6

 <400> 3039

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 tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttcccttctt ccccatacc ttccatcaat gatagcttca 180
 gtatgtgaaa acccagctct tcagccctat aggcctcaac aagcaatcgc agcaagcaac 240
 atacctttat cacccttggtt gtttcaacaa tcgccagccc ctatc 285

<210> 3040
 <211> 420
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-G7

 <400> 3040

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 aagatatttt cctccttat gctccttgct ctttctacat gtgttgctaa cgcgacaatt 120

ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt 180
 atagcttcaa tatgtgaaaa ccagctctt caaccatata ggcttcaaca agcaatcgca 240
 gcaagcaaca tacctttatc gcccttgctg tttcaacaat cgccagccct atctttggtg 300
 cagtcattgg taaaaacat catggcaca cagctgcagc aactcgtgct acctctgac 360
 aaccaagtag ctctggcaaa cttttctccc tactctcagc aaccaccatt tcttccattc 420

<210> 3041

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G8

<400> 3041

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 ttcagcgctt aggggctaca acaagcaatc tcattatgca acataccttt atcacccttg 120
 ttgtttcaac aatcgccagc cctatatattg gtgcagccat tgttacttac catcatggca 180
 cataagttgc atcaactata gctacctgtg atcaaccaag tagctttggc aaacctttct 240
 tcctactctc agcaacaaca atctatttca ttcaaccaac tgtctacact gaaccctgct 300
 gattattagc agcaacaact attaccattc agacagctag ctactgccta ctctcagcaa 360
 caacaacttc tttcatttaa ccaattggcc tcaactgaacc ccgctgctta tttgcagcag 420
 cacatactac taccatttag ccagcta 447

<210> 3042

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G9

<400> 3042

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 ggggatccgt acgacggcgg acggaccgtt gctggacggc ttgaacctgt tggggcacca 120
 ggacacgctg tacgcgcacg ccttgcccca gttctacacc cggtgccgcg tggcgggcac 180
 cgtcgacttc gtcttcggca actccgccgc ggtgctccac gacaccgtcc tcgtcgtgct 240

gccgcggcag ctgcggccgg agaagggcga gaacgacgcc gtcacggcgc agggccgcac 300
cgacccggcc cagcccacgg tgatcgtgct cagccgctgc tccgtcaacg gcagcgagga 360
gtacatggcg ctgtaccgcg agaggcccgg cgtgcaccac gtctacctga tgccgccgtg 420
gaaggagt 428

<210> 3043

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H1

<400> 3043

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taccaggccg acgtctacag ccctggggct gggaggatca cagcctgac cagccacaag 120
ttccccgtgc tcaacctcgt acagatgagc gcggtgcggg tagacctgta ccaggacgcc 180
atcatgtcgc cgttctggaa cttcaacgcc cacagcgcca tgtacggcat caggggcagt 240
gcaaggggtcc aggtcgccag cgacaacggg accacggtgt tcgacgacgt gctccgtgcg 300
gggcagctgc tcatcgtacc ccagggtac ctcgtcgcca ccaaggcgca tggagaaggc 360
ttccagtaca tcgccttcga gacgaaccct gacaccatgg tcagccacg 409

<210> 3044

<211> 100

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H10

<400> 3044

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tgccctccta tgctccctgg gctttctgca agtgctggta 100

<210> 3045

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H11

<400> 3045

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cggccaagat attttccatc cttatgctcc ttgctctttc tgcattgtgtt gctaacgcga 120
ccattttttcc tcaataactca caagctccta tagctgcctt tcttccccca taccttccat 180
caatgaccgc ttcagtttgt gaaaaccag cccttcaacc ctacaggctc caacatgcaa 240
tcgcaacaag caacttacct ttatcacccc tgttctttca acaatcgcca gccctatctt 300
tggtgcagtc attggtacaa accatcaggg cacatcagct gcaacaactc gtgctaccag 360
tgatcagcca agtagctctg gcaaacttt ctcctactc tcagcaacaa caatttt 417

<210> 3046

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H12

<400> 3046

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aaggagggcg tcgttgggccc ttaccgccgc cgagtgcgtc cctgcgggtg ggcacactgc 120
cgtcggttgt ccagcacagc tacaagtcga ggagctctgc agtaaaggaa gtgtgtagtc 180
accatggtcc atttcaagaa taggtatatg gtggtggaga tctttataga tgcaggtaga 240
ggtgaacagg accctataat cctcacccaa tttaatatat caaaagttat aaaagacagc 300
attcagctca actttggtga gcggtggcta tctggatctc ttggatcatt gcaagttaag 360
catgtcaatc ctgtaacgaa tctctgcatt gtccgcgtgt ctgcggaag 409

<210> 3047

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H2

<400> 3047

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tcgaaggcca ggacggaacc gccgccgcca tcgtcggccca cgacggcagc gtctgggcac 120

agtccgagaa cttccccgag ttaaagcctg acgaggttgc tgggatgata aaggactttg 180
 atgaacctgg aactcttgca ccaactgggc tttttgctgg aggtacgaag tacatggtga 240
 tccaaggtga acctggagtt gtcacccgag gaaagaaggg cactggaggc attactatca 300
 agaaaactgg catgtccttg attatcggtg tctatgatga gccaatgact ccagggaat 360
 gcaatatggt ggtggagagg ctggcgatt acctgatcga acagggttc taagtttgtc 420
 ataatgctat ttg 434

<210> 3048

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H3

<400> 3048

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 tcttcttgca agtgctgcta cggctaccat tttccaacaa tggctcacia gctcctatag 120
 cttcccttct tccccgtac ctctcaccaa cgggtgtcttc ggtatgtgaa aaccaattc 180
 ttcaacccta caggatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 240
 tctccaaca atcatcagcc ctattacagc agttacctt ggtgcattta ttggcaciaa 300
 acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360
 aacagcagtt tcttccattc aaccaactag ctgcattgaa ctctgcttct tatctgcaac 420
 aacaacaac 429

<210> 3049

<211> 332

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H4

<400> 3049

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 agctcctata gcttcccttc tcccccgta cctctcacca acgggtgtctt cggatgtgga 120
 aaaccaatt cttcaaccct actggatcca acaggcaatc gcagctggca tcttaccttt 180

atcacccttg ttctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 240
attggcacaa aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 300
ctactctcag caacagcagt ttcttccatt ca 332

<210> 3050

<211> 290

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H5

<400> 3050

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cagcagccag gtccctgccc ttgcaacgca gctgcgggcg gtgtctacta ctgaggaaac 120
tatgtactgt agtaataatg taatggagcc gctgactagc tacctatagg gctatagcta 180
gttcactcgt ttagcggcga tgagtaacgg agtgtcacc atcaccatgg gtggcaatgt 240
gagcaatgac ctggatgaac cattggaatg gaaaggaata atatataggg 290

<210> 3051

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H6

<400> 3051

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tttgccatcc ttgccctcct tgctctttca gcaagcggtg ctaccgagac tattattcca 120
caatgctcac aacaatacct ctetccggtg acagccgcca gatttgaata cccaactata 180
caatcctaca ggctacaaga ggccatcgca gcaagcatct tacggtcggt agcattgacc 240
gtccaacaac catatgccct attgcaacaa ccacccctaa tgaatctata tctccaaaga 300
atcgcagcac atcatctaca acaacagttg cttccaacaa tcaatcaagt agttgcagcg 360
aaccttgctg cttacctcca gcaacaacaa tttcttccat tcaatcaact agctgggggtg 420
aaccttgctg c 431

<210> 3052

<211> 346
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-H7

 <400> 3052

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 cctgtgatca tcttgctttg acatacccaa cggcctgcta ctaacaacac tttattggcg 120
 gagcgctcac ttaaattgct cattagtggg actgcaatga taaaggaata cggatgaagt 180
 ctgtggtaca cgctacatga gaacatacat ttacagatct taatgtcgat agcattgacc 240
 gtacaacaac catatgccct attgcaacaa ccatgctcaa tgaatgtata tcttcaaaga 300
 atcgcagcac atcaactacc atcacagttg cttccaacaa tcaatc 346

<210> 3053
 <211> 100
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-G3

 <400> 3053

 aaacattcca ataagcttca aatggtaaag gcctttttgg ttcaaccttt tttttggaca 60
 aacttcaata aaaatatacc tatggggaaa atctggtttc 100

<210> 3054
 <211> 433
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-014-Q1-K1-H8

 <400> 3054

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 ccggccggat ctgcctcgtc cgctccctca tctactgggc cgcgcagttg ctcggcgcgc 120
 tcgccgcgcg gctcgtgctc aggctcgcca ccggagggat gcatctgccg gagtacgcgc 180
 tggccggggg cgtgagcgga tggaacgcgg cggtgctgga ggcggccatg gcgttcgggc 240
 tcatgtacgc ctactttgcg acggtgatgg acaaagcgcg gagggtcgcg gccggcgccg 300

gagcgctggc ggcgccgctc gccgtggggc tcttggcggt ggccaacgtg ctggcctgcg 360
 ggcgcgtgga gggcgccgtg atgaatccgg cgcgcgcgtt cggccccgnc gtcgtgggct 420
 cccgtcgtg gaa 433

<210> 3055

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-H9

<400> 3055

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 gggagccctg atgccttctt actgcaacaa cagcttctgc cattccatct gcaagctgtg 180
 gaaaacattg cttctttctt gcgacaacaa caattgttgc cattttaccc acaggttgtg 240
 ggaaacatta atgccttctt gcaacagcaa caattgctgc cattctaccc acataatgtg 300
 gcaaacattg ttgccttctt acaacaacaa caattgctgc catttagcca acatgctttg 360
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<210> 3056

<211> 280

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D8

<400> 3056

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 tagcccgggc taaccacctc agccaatcat gctcttgaaa gcgagtcaga ctccgacagc 120
 gaatcactgt atgaggtaga gggagttcca tacgagcgag gtaacagatc cattgagacg 180
 aagcgaataa gaaggatggt gtccaatagg gagtctgcgc ggcggcttag gaggaggaaa 240
 caggcacagt tgtctgacct tgagtcacaa gttgaacgac 280

<210> 3057

<211> 426

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-033-Q1-K1-D9
 <400> 3057

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 ggattgtgcc tccttatgct ccttgggctt tctgcaagtg ctgctacggc gaccattttc 120
 ccgcaatgct cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcggtg 180
 tcttcagtat gtgaaaaccc aattcttcaa ccctacacga tccaacaggc aatcacagct 240
 ggcacatac ctttatcacc ctcgttcctc caacaatcat cagccctatt acatcagtta 300
 cctttggtgc atctattggc acaaaacatc acggcacaac aactacaaca acttgtgcta 360
 gcatacctcg ctgactacta tcagcaacag cagtttcttc cattcaacca actagctgca 420
 ttgaac 426

<210> 3058
 <211> 376
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E1
 <400> 3058

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 ccgcctcctg gccggactga gtttatgcct ggtccaccac gcacatttgc tatgccccca 120
 tcatgcaca tgccacccat gatcaatccc attggaatcc ctacgcctcc agcaccgcct 180
 ctgcctccac agcctcctgc tgaagagcaa ccacctacac ccgatgaacc agaacctaa 240
 aggagagaa cagatgatgc ttctctcatc ccagcagagc agtaccttgt tcagcatccg 300
 ggtcctgcta gcatctctgt atctgtaccc aaccttgatg aagggaactt gcgaggccaa 360
 attttgcaga ttcttg 376

<210> 3059
 <211> 370
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E10

<400> 3059

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caaggccaaa ggggcggcgc cgccgccgcc caccgcggcg gcgagtaccg gagctgtagg 120
gttccttggc tgctccgcc tgatgccgcc gtcgaccgtg gccatatcta tacacgccaa 180
gcccggctcc aaggtcgcca ccatcacaga gattggggac gaggcggtgg gcgtgcagat 240
cgacgcgccg gcgagggatg gcgaagccaa cgccgcgctt gtcgacttta tcagctcggc 300
acttgggggtg aagaaaagag aagtgtctat aggcctcgggt tctaaatcga gggaaaaggt 360
tgtgctggta 370

<210> 3060

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E11

<400> 3060

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gccatgaggg tgctgctcga tgcctcgtc ctctgggtc tcgctgcgag cgccacctcc 120
acgcatacaa gcggcggctg cgggtgccag ccaccgtcgc cggttcatct accgccgccg 180
gtgcatctgc cacctacggg tcacctgcca cctacgggtg atctcccacc gccgggtccac 240
ctgcgctcgc cggttcacct gccaccgacg gtccatgtgc cggcgacggc tcatctgccg 300
ccgtcaccat gccactacc tactcaaccg acccggcctc aggcctcatcc ccagccacac 360
ccatgcacgt gccaacagcc gtatccaagc ccgtgcc 397

<210> 3061

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E12

<400> 3061

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tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcat 120

actctcagca acatcagttt cttccattca accaactggc tgcattgaac tctgtgtgctt 180
 atttgcaaca acaattacca ttcagccagc tagttgctgc ctacccccag caatttcttc 240
 cattcaacca actagcagca ttgaactctg ctgcttattt acagcagcaa caactactac 300
 cattcagcca gctagctgat gtgagccctg ctgccttctt gacacaacaa cagttgttgc 360
 cgttctacct gcacgctatg cctaacgctg gcaccctctt acaactgcaa caa 413

<210> 3062
 <211> 212
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E2

<400> 3062

caaaatattc tgcttcctta tgcgccttgg tctttctgca agtgttgcta ccgcaaccat 60
 tttcccacaa tgctaacaag ctccatagc ttcccttttt ccccatacc tttcaccagc 120
 ggtgccttca atgtgagaaa cccaattgt tcaaccctac aggatccaac aggcaattgc 180
 aacaggcttc ttaccattat aacccttgtt tc 212

<210> 3063
 <211> 369
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E4

<400> 3063

ttcagaaaca cacctagcga agcgactag caacgaccta acaacaatgg ctaccaagat 60
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 acaatgetca cttgtccta gtgccattat tccacagttc ctccctccag ttacttcaat 180
 gggcttcgaa caccagctg tgcaagccta caggctacaa caagcgcttg cggcgagcgt 240
 cttacaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa ccatacaaac 300
 catcgcaacg caacagcaac aacaatttct accagcactg agccaactag ctgtggtgaa 360
 ccctgtcgc 369

<210> 3064
 <211> 204
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-E5

 <400> 3064

 agaaagtgga atacagtagc cattatagag caacaatggc cgccaagata ttggtacggg 60
 cttatgctcc ttgctctttc tgcattgtgt gctaaccgga ccattgttcc tcaataactca 120
 caagctacta tagctgacct tcttccccca taccttccat caatgatcga tttagtatgg 180
 gagaaccag cccttctacc ctac 204

<210> 3065
 <211> 294
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-E6

 <400> 3065

 gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt gcctcctgat 60
 gctccttggt atttctgcaa gtgctgtac ggcgaccatt ttcccgaat gtcacaagc 120
 tectatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttgctc ctgcaacaat catcagccct attacagcag ttacctttgg cgca 294

<210> 3066
 <211> 316
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-E7

 <400> 3066

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 gccaaactgga agcccgggag tgcgccgcat cggcccggcg tctcgagagg aggccaggaa 120
 gatgttcccc caggggttcg aaccgccacc tgccctccaa gagggctacc tccgtttacc 180
 aaggttttagc tagccgacgt acggcacgga catctagctc gtctgtcagt ccgcgtcgac 240

cggggtgcgc ggatcttttg tgcttctgg tggtttctct gactagtact agtatatata 300
taggctctat gtatgt 316

<210> 3067

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-E9

<400> 3067

acctacgagt gagaccaact gtcaacatca aaagcaccat tatggacca cagtggcccc 60
taagagatgg cgtcctcata cgctccgtgc tctttatgca cgttctgata ccgacaccat 120
tttctcacag ctctcacaag ctcttatagc ttcccttttt ccatacacc tcataaaagc 180
tgtctacacc atatgtgaac acccatttct taacacatac acgatccaac acgctctcgc 240
acctggcatc acacctatat cactcgtggt cctaccacta tcatgacca tattacagga 300
attacctgat gcgcaccaat tggcacaaac cattacggca catcatctac aacaacatgt 360
gctagcaaac cttggtgact actcgtagct ac 392

<210> 3068

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-033-Q1-K1-F10

<400> 3068

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aggggtgttg tcgttgccct cgctctcctg gctctcgtg cgagcgccac ctccacgcat 120
acaagcggcg gctgcggctg ccagccaccg ccgccggttc atctaccgcc gccggtgcat 180
ctgccacctc cggttcacct gccacctccg gtgcatctgc caccgcccgt ccacctgccg 240
ccgccggtcc acctgccacc gccggtccat gtgccgccgc cggttcatct gccgtcgcca 300
ccatgccact acctactca accgccccgg cctcagcctc atccccagcc acacctatgc 360
ccgtgccaac agccgcatnc aagcccgtgc cagctgcagg gaacctgcgg cgttggcagc 420

<210> 3069
<211> 378
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F11

<400> 3069

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ttgctctcct ggcgctcgt gcgagcgccg cctccagtac aagcggcggc tgtggctgcc 120
agacaccacc gtttcatcta ccgcctccgt tctatatgcc gcctccgttc tatctgccgc 180
cgcagcagca gccgcagcca tggcaatacc ccaactcaacc accgcagcta agcccgtgcc 240
agcagttcgg atcctgcggc gtcggcagcg tcggcagccc gttcctgggc cagtgcgtcg 300
agttcctgag gcaccagtgc agcccgcgcg cgacgcccta cggctcgcca cagtgccagg 360
cgctgcagca gcagtgct 378

<210> 3070
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F12

<400> 3070

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cggcgccgag cagccaattc caaagcgtga caaagccgct gcaaatgatt caacatacct 120
caatcctcaa gctcatgata gtgttcttgg aatcattctg ggaggtggtg ctgggactag 180
attgtacccc ttgacaaaga agcgtgccaa gcctgcagtg ccattgggtg ccaactatag 240
actgattgat attcctgtca gcaattgtct caacagcaac atatccaaga tctatgtgct 300
aacgcaattt aactctgctt cctcaaccg tcacctctca agagcctacg ggagcaacat 360
tggagggtac aagaatgaag ggtttgttga agtcttagct gcacagcaga gccca 415

<210> 3071
<211> 372
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F2

<400> 3071

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ctgacatcat cccctacgtc ggcctcaccg gctacgtcgg cgccaacccc aggctcctca 120

cccctcaggc cagaaagctg ctggcggggc tgctggcggg ggagtcggcg caggacgcgg 180

tgatcaggac gctgctgtac gagcgcgga tggcgcggtg gccgagctac gccggcgggg 240

tggcggagat cacggcgcg atctcggacc tccggaactc gctggggagg aggggcgtga 300

aggacgaggg cctggtggtg gcgcccagc tggggcccga ggggctgacc gtggggaaca 360

tcacgcgcgg cg 372

<210> 3072

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-F3

<400> 3072

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tagttctgca agtgctgcta cggcgaccat tttcccgcga tgctcacaag ctctatagc 120

ttcccttctt ccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa acccaattct 180

tcaaccctac aggatccaac aggcaatcgc agctggcatc ttacctttat cacccttggt 240

cctccaacaa tcacagccc tattacagca gttacctttg gtgcatttat tggcacaaaa 300

catcagggca caacaactac tacaacttgt gctagcaaac cttgc 345

<210> 3073

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D7

<400> 3073

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tattagccct ccttgcgctt cttgcccttt ttgtgagcgc aacaaatgcg ttcattattc 120
 cacaatgctc acttgctcct agtgccatta taccacagtt cctccgacca gttacttcaa 180
 tgggcttcga acacctagct gtgcaagcct acaggctaca acaagcgctt gcagcgagcg 240
 tcttacaaca accaattaac caattgcaac aacaatcctt ggcacatcta accatacaga 300
 ccatcgcatc acaacagcag cagcagttcc taccagcact gagccaacta gatgtgggtga 360
 ac 362

<210> 3074

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C2

<400> 3074

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 ctcaaaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
 acctttatca cccttggttc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
 gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
 tgctgcct 368

<210> 3075

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C3

<400> 3075

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 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 180
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 240

ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 300
ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 360
tttgcaac 368

<210> 3076

<211> 308

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C4

<400> 3076

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ctgcacgagg ctgcagggct tgcacagcgc tggcaccggc ctgacgacga tgatggggcg 180
cgccgggctg taccataca cacagtacct gaggcagccg caatgcagtc cactagcagc 240
ggcgcgctac tacgccgagt gtgggcagac gagcgccatg taccagacga tcctgcaaca 300
ctgctgcc 308

<210> 3077

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C5

<400> 3077

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cgaccagtgc gcgcaccgcc cggcagggct gctcatctcg tcgacgacca gtggattaat 180
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ggacgcgtcc acgttccgcc gcggcgccgc gcagggcctg agggggggcc ggtcgttggc 300
ggcggcggac acgctcagca tgcggaccag ctgcgcgct gcgccaggc accagcagca 360
ggc 363

<210> 3078

<211> 366
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-C6

 <400> 3078

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 gggcccgtgc cgctcgggcg gcggcggcgg cggcggcgga ggcggaggca gtggcggtgc 300
 gaacgtggct aacgtggtca gcgacgcgtt cttcaacggc atcaagaacc aggccgggag 360
 cgggtg 366

<210> 3079
 <211> 360
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-C7

 <400> 3079

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 caatgctcac aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacct tataggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaac ttgtgctagc 360

<210> 3080
 <211> 366
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-033-Q1-K1-C8

 <400> 3080

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aagtgtttct tgtacacaga caggcggctg cagctgtggt caacaacaaa gccatgagca 180
gcaacatcat ccacaacaac atcatccaca aaaacaacaa catcaaccac caccacaaca 240
tcaccagcag cagcaacacc aacaacaaca agttcacatg caaccacaaa aacatcagca 300
acaacaagaa gttcatgttc aacaacaaca acaacaaccg cagcaccaac aacaacaaca 360
acaaca 366

<210> 3081

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C9

<400> 3081

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ttgcagccta gatgcagcga gaaaagtgat ttagaatcag ctgagcagtc atacacaaca 120
cgcttgctgg tgtcaacatc acgtattggg tgctaattg gcaaagggtg ttcaatcatt 180
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aatgctcttg tgcaaatagc tacaaggctg aaagccaatt tctttgaaag agagggctct 360
ttatctgcat ttccacctgt tatcccttac catcctttgc ctgctggtgt ttcggatgaa 420
ccaaaa 426

<210> 3082

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D1

<400> 3082

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gggaggagag aaaatatcat tcttgagct ctctgaaaga gcagttttac gccgtgaagt 120

tgcgattggt tacatcaagg acggcaagca gcatattaat cctatcaaca aatcggagcc 180
gctgtccctt gaaatgaatg attcgctcat tgtgatatcg gagtttgaag gtgaacaacc 240
aattatgatg ggcggagaat cttcaggatg aaattttcag ctttataatct cttcacagaa 300
actctaacaa ctgttgctac catgaagaga taacatataa ccttgtttat aatccttttc 360
ttt 363

<210> 3083

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D10

<400> 3083

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caatgtcac aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
tcggatatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca gcagttacct 300
ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
aactctgctt cttatttgca aca 443

<210> 3084

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D11

<400> 3084

aggatcctgg cctcggcct gctgctagcg ctctgtgctg ctgccgccgg ccgggccgcc 60
gcccagaact gcggctgcga gcctaacttc tgctgcagca agttcggcta ctgcggcacg 120
accgacgact actgcggcga cgggtgccag tcgggcccgt gccgctcggg cggcgggcggc 180
ggcgggcggc gatgcggagg cagtggcggg gcgaacgtgg ctaacgtggg cagcgacgcg 240

ttcttcaacg gcatcaagaa ccaggccggg agcgggtgcg agggcaagaa cttctacacc 300
 cggagcgcgt tcttgagcgc cgtcaacaag taccgggct tcgcccattg cgggacggag 360
 gtggagggca agcgcgagat cgccgacttc ttgcgcacg tcacgcacga gaccggacat 420
 ttctgctaca tcagcgag 438

<210> 3085

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D12

<400> 3085

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 ttttgccctc ttatgctcct tggcttttct gcaagtgtcg ctacggcgac cattttccca 120
 caatgctcac aagctcctat agcttccctt cttcccccggt acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaacccaat tcttcaaccc tataggatcc aacagggaat cgcagctggc 240
 atcttacctt tatcacctt gttcctccaa caatcatcag ccctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacaacag tttcttccat tcaaccaact agctgcattg 420
 aactctgctt cttatttgca ac 442

<210> 3086

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D2

<400> 3086

gacgtgcagt ccgtcgcgca gcagctgcag atgatgatgc agcttgagcg tgccgcggcc 60
 ggcagcagca gcctgtacga gccagctctg atgcagcagc agcagcagct gctggcagcc 120
 cagggctctca accccatggc catgatgatg gcgcagaaca tgccggccat ggggtggactc 180
 taccagtacc agtaccagct gccagctac cgcaccaacc cctgtggcgt ctccgctgcc 240
 attccgcctt actactgatt catgatattt gggaaatctc ctctatccat ccctctctat 300

ctatatatgt aataatgcag taagacgaca cacattatca tgtgtggtat gaccaataat 360
 atatgcatc 369

<210> 3087
 <211> 368
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D3

<400> 3087

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 tgacaagggga cctgaaaagg ctaaatacagg cgcagataag aaaaataggc caaaagatgt 180
 ttctggtcgg ccattggcaa cagaacatga atttgaagtt ctcatgaatg ctgcaagggt 240
 agacacaggt gtcctgcac gggtaaacc atttggagtt gaagtctgta atgatagatg 300
 cttacggtgt ggaaactatg gtcaccaaag tggtagccga gaatgtccct tgcaacgatg 360
 caatcatg 368

<210> 3088
 <211> 280
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D4

<400> 3088

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 atatgacctt actatttcat tgatttggtg gcacatactc tgttatcgtc aaatccattt 180
 ttattctcct tgttacaact attatgattg ctgttgactc ttcgtgatac tataacaggt 240
 caatatacat tgatccttat tacattatat cacactttat 280

<210> 3089
 <211> 290
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D5

<400> 3089

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ggcaacggca tgccagctta caccaatgga atggctcctg ccttccacca ggcttactac 120
cgctagggttc actcagga aa cgaagaattc gatgatgaat gacatgacta caactgatga 180
tgctacgac tcaaaacccc gctcaatggc cctgtttagt accgactgac tacacccgta 240
ggctgggtac ctgatcttcc atgtccttac ccaccgctac tactagatgt 290

<210> 3090

<211> 339

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-D6

<400> 3090

gttgtggagg gaagcgttcc agaaacaacc gcactcttgg aacagagatg gggtaagagc 60
ttctacacag gtaatggaac tgtaggacgt atagtgatgg cagcagccgc aaagcatctg 120
accccggtag ctctggagct tgggtgggaaa tcccctgtta tcgtggattc aaatgttgat 180
ctgcatgttg ctgctaagag gattgctgtt ggcaaattgg gatgcaacaa ctgccaagca 240
tgcattgctc cagattacat cataacgaca aaatcatttg caccggagct ggtggccttt 300
ttcaaaagag ttttggaaag gttctatggg gaggatcct 339

<210> 3091

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C12

<400> 3091

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cctcgctgct tatttgcagc agcaaatatt actaccattt agccagctag ctgcagcaag 120
ccgtgcttcc ttcttgacac agcaacagtt gctgcctttc taccagcagt ttgcggctaa 180
ccccgaacc ctcttacaac tacaacaatt gttgcccttt gtccaacttg ctttgacaaa 240

cccagcagcc tgctaccaac aacacatcat tgggtggtgcc ctctttttaga tagcttatta 300
 gttgtaattc aataataaag ttttttggat gatgtatgtg gcccaaccaga aataagaagt 360
 tacattttca aaaaaaaagt gctgtcccat tcaagcaagg gtacctcact cac 413

<210> 3092

<211> 320

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A7

<400> 3092

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 gtttttatta ctctcatcat taacaaatac ttctattcaa ccaactgttt aactgaaca 180
 ctgctaatta tttaacaact caacaatcac catgcaatca gataactact gtctactcta 240
 taacccttca acttcttaca tccaaccaac ttatcacact gaaccgcttt gctgcatttg 300
 cagaccaaact actactggca 320

<210> 3093

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A9

<400> 3093

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 gtggggagcc cttatgcctt cttactgcaa caacagcttc tgccattcca tctgcaagct 120
 gtggcaaaca ttgttgcttt cttgagacaa caacatttgt tgccatttta cccacaagtt 180
 gtgggaaaca ttaatgcctt cttgcaacag caacaattgc taccattcta cccacagaat 240
 gtggcaaaca ttgttgctt cttacaacaa caacaattgc taccatttag ccaacatgct 300
 ttgacgaatc ctaccacctt attgcaaccg cccaccattg gtgggtgccat cttctagatt 360
 ttttatgatt tatactgtaa taataaagtt ctcatgctga tatgtgagac ctctcagtaa 420
 taaa 424

<210> 3094

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B1

<400> 3094

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tcgttgggtct ttctgcaagt gctgctaccg caaccatttt cccacaatgc tcacaagctc 120
ctatagcttc ctttcttccc ccatacctct caccagcggg gtcttcagta tgtgaaaacc 180
caattcttca accctacagg atccaacagg caatcgcagc aggcatctta cctttatcac 240
ccttgttcct ccaacaaccg tcagccctat tacagcagtt acctttgggt catttggtgg 300
cacaaaacat caaggcaca ccaactacaac aacttgtgct aagaaacctt gctgcctact 360
ctc 363

<210> 3095

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B10

<400> 3095

gcacaatagt gtaccaacaa tggcagccaa aatattttgc ctcccttatgc tccttgggct 60
ttcgtgcaag tgctgctacg gcgaccattt tcccgcgaatg ctcgcaagct cctatagctt 120
cccttcttcc cccgtacctc tcaccagcgg tgtcttcggg atgtgaaaac ccaattcttc 180
aaccctacag gatccaacag gcaatcacag ctggcatctt acctttatca cccttggtcc 240
tccaacaatc atcagcccta ttacatcagt tacctttggg gcattttattg gcacaaaaca 300
tcagggcaca acaactacaa caacttgtgc tagcaaacct tgctgcctac tctcagcaac 360
agcagtttct tccattcaac caactagctg cattgaactc tgcttcttat ttgcaacaac 420

<210> 3096

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B11

<400> 3096

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tgtttgcctt ctttatgctc cttgctgttc ctacatgtgt tgctaacgcg acaattttgc 120
ctcaatgctc acaagctgct atagctttcc ttcttcccc ataccttaca tcaattatag 180
cttcagtatg tgaaaacca gctattcaac catataagct tcaacacgca atctcaggat 240
gcaacatacc tttatagacc ttgctgttgc aacaatgacc agccctatct ttggtgcagt 300
cattggtaca aaccatgagg gcacaccagc tgcagcaact cgtgctacct gtgatcaac 359

<210> 3097

<211> 333

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B12

<400> 3097

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cgcgtttcgt accgcttccg gttccggggg cgggcgggca gcaccgtctc ggctctcgga 120
tactatggct tccggcgagg ggtgggaggc ggcgggtgcg gcggaggtgg tcgccgctgc 180
attgttggac cacctgcaga tggtagagct cggagcctgt tcaaagggtc acaatgcaca 240
gcctatggac tgactactac caacggacct gttctggaag gtgccgctgc acccaattgg 300
cgatcgacaa catattggca ctgaaggagg tga 333

<210> 3098

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B2

<400> 3098

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taggtgtccc tacttatgct gcttgcctt tctacatgtg ttgctaacgc gacaattctc 120
cctcaatgct cacaagctac tatagcttcc cttcttcccc cataccttcc atcaattata 180

gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240
agcaacatac cttcatcggc cttgttgtat caacaatcac cagccctatc tttggtgcag 300
acataggtac aaaccatcac ggcacaacag ctgcagcaac tcgggctacc tgtgatcaac 360
caagtagc 368

<210> 3099

<211> 366

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B3

<400> 3099

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ccgtgtttct ctcttgtttt ttcttttttg aaaaaacgag gagggcgctc tcagcggccc 120
tcctgctagc cttgttggcg gtggccctgg tctccctggc cggcccagcc acggccgcgg 180
ggaacaagac cgggcaggtg accgtgttct ggggcccggaa caaggccgag ggcacgctgc 240
gcgaggcctg cgactcgggc ctctacacca tggatgatcat gtccttcttc gacgtctacg 300
gcccgcagcg cggcggctac caccagtacc acctggacct gtcggggcac tccgacggcc 360
cggcat 366

<210> 3100

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B4

<400> 3100

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tgcatectta tgctccttgc tctttctgca tgtgttgcta acgcgacat ttttctcaa 120
tactcacaag ctctatagc tgcccttctt ccccatacc ttccatcaat gaccgcttca 180
gtttgtgaaa acccagccct tcaaccctac aggtccaac aagcaatcg aacaagcaac 240
ttacctttat caccctgtt ctttcaacaa tcgccagccc tatctttggt gcagtcattg 300
gtacaaacca tcagggcaca acagctgcaa caactcgtgc taccagtgat cagccaagta 360

gctctggca

369'

<210> 3101

<211> 333

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B6

<400> 3101

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taccaagata ttagtccttc ttgctcttct tgcccttttt gcgagcgcaa caaatgcgtg 120

cattattcca caatgctcac ttgctcctag tgccattata ccacagctcc tacgaccagt 180

tacttcaatg ggctttgaac acttagctgt gcaagcctac acgctacaac aagcgctcgc 240

ggctagcgcc tgacaactac caattcacca actgctacta caatgcttgg cacatttcac 300

cctacaaacc atcgcaacac agcagcaaca aca 333

<210> 3102

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B7

<400> 3102

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gtatccacca atggcgggcgc tcggaggacg gcggaggagg gcgtcgtcag cggccctcct 120

gctagccttg ttggcggttg ccctgggtct cctggccggc ccagccacgg ccgcggggaa 180

caagaccggg caggtgaccg tgttctgggg ccggaacaag gccgagggca cgctgcgcga 240

ggcctgcgac tcgggcctct acaccatggt gatcatgtcc ttctctgacg tctacggccc 300

gcagcgcggc ggctaccacc agtaccacct ggacctgtcg gggcaccgga acggccggca 360

tcggg 365

<210> 3103

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-B9

<400> 3103

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cctataggct gcaacgagca attgcggcga gcgtcttaca acaaccaatt tcccagttgc 120
aacaacaatc cttggcgcat ctaacaatac aaaccatcgt atcgcaacag caacaacaat 180
tcctaccagc actgagccac ctagccatgg tgaaccctgt cgcctacttg caacagcagt 240
tgcttgcatc aaaccaactt gctctggcaa acgtagctgc aaaccatcca caacaacagc 300
tgcaacagct tatgccagcg ctacgtcaac tagccatggg gaaccctgac gactacctac 360
aacagctaca actgctttta tctagcccg cgcgtgtggc caatgcacct acatacctgc 420
aacaacaatt 430

<210> 3104

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-C1

<400> 3104

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gggtagtggc cggatgcata ccatttaagt atagagctaa caatgatgaa atctctgggtg 120
acaaatctaa gaaagtcgtg gaagttctca tgataaattc ccaaagcgga cctgggtcttt 180
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ctatagaaga agccggagtt cgagggtgata tagtgcatth tctgggggtcg tatgacttca 300
aaagcaagac acatgatgat gcgtgctgca cttagggtat gtgcagggct gcagtgtttg 360
cgct 364

<210> 3105

<211> 422

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-033-Q1-K1-C10

<400> 3105

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 ctgttgccaa atcactggag ccaaagaac tatgtaaact cctggaggca taccaaagcc 120
 tgcaaatgg atcaaatgct ggaacctctg gaacagctaa tgccacagaa gaggctgcag 180
 ggccatctaa ctctaagttg cctttcgtga atggtagtca ttgtggacat gcatcatcat 240
 ctgttgtgcc agtacagtcg aaggctacca tagtggtaac tccagagccc gcatcatgca 300
 agcttaagga ttttgatctg aatgacactt gtaatgatat ggaaggcttt gaggatcgac 360
 aagaaggttc acctacacct gcctttaaga cagctgactc tnctaattgt gcatcatgga 420
 tg 422

<210> 3106
 <211> 429
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-033-Q1-K1-C11
 <400> 3106

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 cggcgatgtg cggcctgcag cagccgactc catgccccta cgctgctgtc ggcgggtgtcc 360
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 tagcggcga 429

<210> 3107
 <211> 364
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-033-Q1-K1-A6
 <400> 3107

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 tgctcacttg ctctagtctc cattattcca cagttcctcc caccagttac ttcaatggcc 180
 ttcgaacacc cagctgtgca agcctatagg ctacaacaag cgattgcggc gagcgtctta 240
 caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaacaat acaaaccatc 300
 gcaacgcaac agcaacaaca gtctctacca gcaactgagcc acctagccat ggtgaaccct 360
 gtcg 364

<210> 3108

<211> 364

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-F10

<400> 3108

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 caatgctcgc aagctcctat agcttccctt ctcccccggt acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaaccaaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
 atattacctt tatcacctt gtctctccaa caatcatcag ccctattaca tcagctacct 300
 ttggtgcatt tattggcaca natcatcagg gcacaacaac tactacaact tgtgctagca 360
 aacc 364

<210> 3109

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F11

<400> 3109

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 gcagcaacaa ctactaccat tcagccagct agctggtgtg agccctgcta cttctctgac 180

acaaccacag ttgttgccgt tctaccagca cgctgcgcct aacgctggca ccctcttaca 240
 actgcaacaa ttgctgccat tcaaccaact tgctttgaca aacctagcag tgttctacca 300
 acaaccatc attggtggtg ccctctttta gatttcttat gagttatagt tcaataataa 360
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<210> 3110

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F12

<400> 3110

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 cacagtgtc acttgctcct agtgccatta ttccacagtt cctcccacca gttacttcaa 180
 tgggcttcga acatccagcc gtgcaagcct acaggctaca actagcgctt gcggcgagcg 240
 cttacaaca accaattgcc caattgcaac aacaatcctt ggcacatata accctacaaa 300
 ccattgcaac gcaacaacaa caacaacaac agtttgtgcc atcactgagc cacctagccg 360
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<210> 3111

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F3

<400> 3111

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 cgagaagacc ggtggcttac gtggcggtg tggctatgtt gcggcgata tgggtggtgt 180
 ggaggctatg gtggtgctgg tggaagccgt ggatactgtg gcagcgacta tgggtggcagc 240
 tacagcaaca tgggtggtgg tggtgattat ggtgacgtg gttgacgttg aggcaactat 300
 actgccagac gttgcgaccg cttgccttac agtaactttg gctatgacag tatctccggt 360

ggaaacgggg ctagc

375

<210> 3112

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F4

<400> 3112

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cttttaaccc ttctggtggt ggcagcatct atgttgacga agcttatggg acagcaaagc 120
atgcaaaaac tgcttctgct gctgctgctg caaacaatgt cgcttgaat gtatacagct 180
caattacaat gcctgtgcac ccaatgcctt ggcagcagca aggctatgag aacttttatg 240
gggcttatgg ctccaggatg tatagctctt acatgggata tagggtgccc tatggagata 300
acatgtgctc aggctatgga agaggttatg gcggttcgtc atgaggttcc agaattgatg 360
gtggatcaac gtatatcgct ggaatgttac gaccctatgg tggctatggg atgggtcatga 420
gtccttataa tcagg 435

<210> 3113

<211> 409

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-F5

<400> 3113

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gggtgtctgc tcgttgacc tcgctctcct ggcattctgc tgcagagcgt ccacctccac 120
gcatacatag cgtgcggctg cggcttgcca gtccaccgtc gtccggttca tcgtaccgtc 180
gtcgggtgat ctgccaccgt ncgggttcacc tgccacctcc ggtgcattct ccaccgccgg 240
tccacctgcc gccgccggtg cacctgccac cgcgggtcca tgtgccgtcg tcgggttcac 300
tgccgccgcc accatgccac taccctactc aaccgtcccg gcctcagcct catccacagc 360
cacacccatg cccgtgccaa cagccgcac caagcccgtg ccagctgca 409

<210> 3114
 <211> 423
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F6

<400> 3114

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 tgaccggaga tggcgccgat cgggtggagg aggagcgcgg cggcgcgggg cgcctggcgc 120
 ccggccacgg tttgcctgtg gctcgcgctc gccgccgcgc cactgacgct cgcccaggct 180
 aagaaggacc tgacggatgt taccacatg gtctacttcg acatcgagat cgacggctag 240
 cccgtaggcc ggattgtcat ggtgcttttt gggaagactg ttcctaagac ggcagagaac 300
 ttgcgagctc tttgcacatg agagaaaggc gtcggcaaga gtggcatagc cctccactac 360
 aagggaagta agttccacag aatcatccac agcttcatgc tccaaggagg tgacttcact 420
 ctc 423

<210> 3115
 <211> 371
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F7

<400> 3115

atagaaagca caatagtgt ccaacaatgg cagccaaaat attttgcttc cttatgctcc 60
 ttggtctttc tgcaagtgtt gctaccgcaa ccattttccc acaatgtca caagctccta 120
 tagcttcctt tcttccccca tacctctcac cagcgggtgc ttcaatgtgt gaaaccccaa 180
 ttgttcaacc ctacaggatc caacaggcaa tcgcaacaag catcttacca ttatcacctt 240
 tggtactgca acaaccgtca gccctattac aacagggtacc tttgggtccat tcggtggcac 300
 aaaacattaa ggcaccacaa ctaccacaac ctgggcttgc aaaccttgct ggatactttt 360
 aacaacatta a 371

<210> 3116
 <211> 418
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F8

<400> 3116

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caacagttta tgccagtgc cagtcaacta gccatggtga accctgccgt ctacctaaa 120
ctactttcat ctagcccgt cgcggtgggc aatgcaccta cgtacctaca acaacagttg 180
ctgcaacaaa ttgtaccagc tctgactcag ctagctgtgg caaacctgc tgcctactta 240
caacagttgc ttccattcaa ccaactggct gtgtcaaact ctgctgcgta cctacaacag 300
cgacaacagt tacttaatcc attggcagtg gctaaccat tggtcgctac cttcctgcag 360
cagcaacaac aattgctgcc atacaaccag ttctctttga tgaacctgc cttgcagc 418

<210> 3117

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F9

<400> 3117

agccttccgc cacttgccac cttaaaaggc ccatttttgt cccaccattg gcagccaaaa 60
tatttggtcg ccttatgctc cttggtcttt ctgcaagtgt tgctaccgca accattttcc 120
cacaatgctc acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtg 180
cttcaatgtg tgaaaacca attgttcaac cctacaggat ccaacaggca atcgcaacag 240
gcattctacc attatcacc ttgttctcc aacaaccgtc agccctatta cagcagttac 300
ctttggtcca tttggtggca caaacatca gggcacaaca actacaacaa cttgtgctag 360
caaaccttgc tgcatactct cagcaacatc agtttct 397

<210> 3118

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G1

<400> 3118

gggtgggtcgg cttctctctc cccttcggtt cgggttcggg ttcgtgaggt tctccgggtt 60

tcggttttcgt ggggtgggcgg atcgagatgg cggcgctcgga tgttgagtac cgctgcttcg 120
tcggcggcct cgctggggcc acggacgacc actccctcca caacgccttc agcacctacg 180
gcgaggtcct cgagtccaag atcctcctcg atcgggagac gcagaggtcc cgcggcttcg 240
gcttcgtcac cttctccacg gaggaggcga tgcggaacgc catcgagggc atgaacggca 300
aggagctgga cggtcgcaac atcacctgca acgaggccca gtcccgcggc ggccgtggag 360
gcgggcggcgg cggctacggt ggtggcccgt gaggcggcgg ctacgggcgt ggcgggcgcc 420
gtgat 425

<210> 3119

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G10

<400> 3119

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aattttcttc attcaatcaa ctagctgggg tgaaccttgc tgtctacttg caggcacaac 120
aactactacc atttaaccaa cttgtcggga gccctgatgc cttcttactg gaacaacagc 180
ttctggcatt ccatctggaa gctggggaaa acattgggtc tttcttgcca caaccacat 240
tgggtggcaca ttacaccac agtttgggga acacataaat gctcttttgc aacagaaaca 300
atggcgggcca ttctaccac ataatgtggc aaacattgtt gccttcttac aacaacaaca 360
attgctgcca tttagccaac atgctttgac 390

<210> 3120

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G11

<400> 3120

gacagacaaa gatttgtgaa ggtgatccgc gctgacaaga gatggataag atggacgagg 60
cgggcggcggc atcgctgtgc ttagcgggcc tgatggccgt ggctgtcttg caaggccagg 120
tcgagctgca gaggctcagg gacctgcagt gctgtcagga ggtccaagag agcccgtcgc 180

acgcgtgccc ccaggtgctc gaccggcagc taaccggcgg cggctgccga cgacgcgttg 240
 gcccgttacg gtagcgcacc gttctacgga tgctgtgctg ccagcagcta caggacgtga 300
 gcctcgaatg ccactgagac gtcacccgga gcatgggtcaa ggga 344

<210> 3121

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G12

<400> 3121

cgtacctaca acagcgacaa cagttactta atccattggt agtggctaac ccattgggtcg 60
 ccgccttcct acagcagcaa caattgctgc catacaacca gttctctttg atgaatcctg 120
 tcttgctcag gcagcaaccc atcgttggag gtgccatctt ttagattaca tatgagatgt 180
 actcgataat ggtgcctca taccgacgtg tgtttcctag aaataatcaa tatattgatt 240
 gagatttata tcgataaaaa aaaaaaaaaa aaaaaaaaaac taaaaaaaaa aaaataaaaa 300
 aaaaatacaa aacaaaaaca gaaaaaacca aaacaaaaaa aaaggggcggc 350

<210> 3122

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-G2

<400> 3122

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 gaagttctcg ggatgggctg tttcgtgggt gggcggatcg agatggcggc gtctgatgtt 120
 gagtaccgct gcttcgtcgg cggcctcacc tgggccactg acgaccactc cgtacacaac 180
 gccttcagca cctacggcga ggtcctcgag tccaagatca tcctcgatcg ggagacgcag 240
 aggtcccgcg gcttcggctt cgtcaccttc tccacggagg aggcgatgcg gaacgccatc 300
 gagggcatga acggcaagga gctggacggt cgcaacatca ccgtcaacga ggcccagtcc 360
 cgctgcgggc gtggaggcgg ctgcagcggc ta 392

<210> 3123

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-F1

<400> 3123

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ttcttctggc ttcataaaga cttgcggtga tttcaggatt ggtaaatatg aaagctgtga 120

tatagtcaac atgttctctc accagatgaa atgggataaa gggccgctg ggcttatcaa 180

aatctatcca cagaaagggtg atatctgggc tgtttatcgg aattggtcct ctgactggga 240

tgaagatact ccagataatg tgctccatgc ctacaatgtg gttgaggtac tggatgccta 300

tgatgaagtc catggcatct ccataattcc cttagtcaag gttactggat ttcgaacagt 360

atttcagcgc catcaggatc caaatgctac catgaagatt cctaaagaag agat 414

<210> 3124

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D5

<400> 3124

gcacaatagt gtaccaacaa tggcagccaa aatatcttgc ctccttatgc tgcttggctc 60

atctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc ctatagcttc 120

ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc caattcttca 180

accctacagg atccaacagg caatcacaga tggcatctta cttttatcac cttgttcct 240

ccaacaatca tcagccctat tacatcagtt acctttgggtg catttattgg cacaaaacat 300

cagggcacac caactacaac aactcgtgct atcaaacctt gctgcctact ctcagcaaca 360

gcagtttctt tcattcaacc aactagctgc attgaactct gcttattatt tgc 413

<210> 3125

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D6

<400> 3125

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gctgatcggt gcccttgctc tcctggcgct cgctgcgagc gccgccttca gtacaagcgg 120
cggctgtggc tgccagacac caccgtttca tctaccgcct ccgttctata tgccgcctac 180
gttctatctg ccgccgcagc agcagccgca gccatggcaa taccctactc aaccaccgca 240
gctaagcccg tgccagcagt tcggatcctg cggcgctcggc agcgctcggca gcccgttcct 300
gggccagtgc gtcgagttcc tgaggcacca gtgcagcccg gcggcgacgc cctacggctc 360
gccacagtgc caggcgctgc agcagcagtg ctgccaccag atcaggcagg tggag 415

<210> 3126

<211> 404

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-D7

<400> 3126

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cagggcagtc tacgctgagt gtgagcctct gcttaccttc gttggacaca atccagcagc 120
ttgttgctcg tatctacaca gcagcgtctg cgctctaacg catgagcaca ctgttacaat 180
ctgcaacaca ttgcttgctc ttcgaaccaa cttgcttnag acaaacgcca gcatgcattc 240
taccaacaac tccatcatat ggtggtgcca ctattcgtag attctcttat gagtctatna 300
gttcaagtaa taagagtctt tttagtcatg atgtatcgtg gccttcccat gaaataagta 360
cagtacagtt tctagaattc ctcaatgcag aaacaaaaag gtga 404

<210> 3127

<211> 292

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D8

<400> 3127

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tttgcggcta accccgcac cctcttaca ctacaacaat tgttgccctt tgtccaactt 120
gctttgacaa acccagcagc ctccctaccaa caacacatca ttgggtggg gc cctcttttag 180
attgattatt agttgtaatt caataataaa gtttttttga tgatgtatgt ggccaaccag 240
aaataagaag ttacatttcc aaaataataa agttttttgt ctgatgtttg tg 292

<210> 3128

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D9

<400> 3128

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gaaggacggg taggaccatt ccggaagga ccgtccgac accggtcggc cgtcagcgat 120
gctggatgga attacacccc gttacacat gagatcgact cgcatgaatc taggcgagag 180
tggagctaaa gacagcagaa cacaatgtat caccttcaaa gcctgacttg gctcttttagc 240
tgggtcgaat tgctgatgcc gtgctgctgc tttgagatct gatgggatcc tttggatcaa 300
gacggagact tgcgaggac attgtcggcg ctttggcggt atcaggaagg agc 353

<210> 3129

<211> 285

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E1

<400> 3129

gtcctaatag ccagccgcgc cccttttttt tctttttttt gcataatttt ttctggtatg 60
gctctcaciaa ttcctttatt tccaacttaa atttagactc ttgatcattt tttattcaga 120
acgagcacta gtgtcacgtt atgacgacgt gaccaccttg agctcgaatt cctcgacgac 180
gaccagcgac aacccttcca cttgagcggc acctagtgtc tcgtgccttt gataccctag 240
cgtcgcgcca ttcgagttgt gcatcttaac gccattgaca tacac 285

<210> 3130

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E10

<400> 3130

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accctacagg atccaacagg caatcacagc tggcatctta cctttatcac ccttggtcct 120

ccaacaatca tcagccctat tacatcagtt acctttgggtg catttattgg cacaaaacat 180

cagggcacaa caactacaac aacttggtgt agcaaactt gctgcctact ctcagcaaca 240

gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 300

acaactacca ttcagccagc tacctgctgc ctacccccag caatttcttc cattcaacca 360

actggcagca ttgaactctc ctgcttattt acagcagcaa caactactac cattca 416

<210> 3131

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E11

<400> 3131

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accaatggct accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac 120

aatgcggttc attattccac agtgctcact tgctcctagt gccattattc cacagttcct 180

cccaccagtt acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact 240

agcgcttgcg gcgagcgctt tacaacaacc aattgcccaa ttgcaacaac aatccttggc 300

acatctaacc ctacaaacca ttgcaacgca acaacatcaa caacaacagt ttctgccatc 360

actgagccac ctagccgtgg tgaaccctgt cacctacttg caacagcagc tgcttgcat 419

<210> 3132

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E12

<400> 3132

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gaaacaggac atcaccatca ctggtgctag tacgctacct aaggatgagg ttgagagaat 120
ggtagaagaa gccgataagt ttgccaaagga ggacaaagag aagagagatg caatcgacac 180
caaaaaccag gcggactcag tgggtctacca gactgagaag caactgaagg agcttggcga 240
caaagtcccc gtcctgtga aagagaaggt ggatgtgaag ctccaggagc tcaaagacgc 300
catttctggg gatcaacac agagtatgaa agatgccatg gctgctctga accaggaggt 360
gatgcagatt ggccaggcaa tgtataacca gcctgggtgcc agtgctgctg ggcc 414

<210> 3133

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E3

<400> 3133

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cttccaaccc atttgctctg ccaaagggtg ctgcatacca acagcatcaa caattgcaac 120
agtttatgcc agagctcaga ctactagcca tgggtgaacct tgccgactac ctacaacagc 180
gacaactgct gtcacttagc cctctcgtcg tggctaattgc acatacttac ctgcgacatc 240
aattgctgca gcagatagca ccagctctga ctcagctagc tgccggcaaac gctgctgcct 300
actatgcaca gctgcttaca ttcaaccaac tgactgtttc gaactctgct gcgtacgtac 360
aacagcgact acaggtactt aatccagtat cagtgcctaa cccattgttc actgccttac 420
tacagctaca acaattgcta ccatacagtc ag 452

<210> 3134

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E4

<400> 3134

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gcgctcggac ggcggcgacc acaagcctgt gttcgccacg gcggcagtga gctccccgtc 120

ggagcataag ccgttcgtgg cggctgcggg cggctctgcc cggcggttcc aggagctggc 180
 ggcgtactac gaccggccgt cggactcgat gccgcggctg cactcggact actccagctg 240
 ctccggagcaa gtgctgtcca cggagcagct ggcgtgcgac cggtaggtgc agagccagcc 300
 caagatcagc gagtgggagc ggaccttcga ctccgaccgc gtgaaccccg cgggctccat 360
 gctcgacccc gtcgtctgcc acgccggcgg cgaccgcgtg ctgcaggaca tactcatgta 420
 ct 422

<210> 3135
 <211> 425
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E5

<400> 3135
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 tccctcctta tgctccttgc tctttctaca tgtgttgcta acgcgacaat tttccctcaa 120
 tgctcacaag ctctatagc ttccttctt ccccatacc ttccatcaat tatagettca 180
 atatgtgaaa acccagctct tcaaccatat aggttcaac aagcaatcgc agcaagcaac 240
 atacctttat cgcccttggt gtttcaacaa tcgccagccc tatctttggt gcagtcattg 300
 gtacaaacca tcatggcaca acagctgcat caactcgtgc tacctctgat caaccaagta 360
 gctctggcaa acctttctac ctactctcag caactacaat ttcttccatt caaccaactg 420
 tctac 425

<210> 3136
 <211> 401
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E6

<400> 3136
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 aacaattgct gccatacaac cagttctctt tgatgaaccc tgccctgcag caaccatcg 120
 ttggagggtgc catcttttag attacatatg agatgtactc gacaatggtg ccctcatacc 180

gacatgtgtt tcctagaaat aatcaatata ttgattgaga tttatctcga taaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaataaa aagaaaaaaaa 300
 aaaaaaagaa aaaaaaaaaa caaaaaaaaaa aatacacaaac aaaaagaaca aactaaaact 360
 aactaaaaaa aaaacaaaaa acggggggccc tctttaaggg g 401

<210> 3137

<211> 340

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-E7

<400> 3137

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 tggctacata gctacttaga acgatttcat gattggctaa tacgacagct gtgatataat 120
 gcacatgatc tctgacaaca tgaaatgata taaaagacct tgtaggctta atagaattta 180
 tacacagaaa ggtgatatct gagctgtata tgctaattgg tgctctgact gcgatgaaca 240
 tacttcaaat aatgttctcc atgcatacat tgtgggtgat gtactggatg cctatgatga 300
 taccatgggt aactgcataa ttcccttagt caaggttact 340

<210> 3138

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-E8

<400> 3138

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 atggcgcata gcaagcgga aatcaagccc gggagggcgc ataccaaggt ggccggcgac 120
 gacgagatgc tgcggaccgg gttcttcgac ggcacgcgcg tggagggcgg caagatcgcc 180
 gactccagc ccgtcgacct ctctgccgct gcccgcgcg tgcgcgacgc cccgtactca 240
 tgcgagcagg aaggaccaca cgaggagggg accaacaaga acgccgtcat cgcggagtcg 300
 gagcccgtcg acctgccgcg gagcgcgcg ggcgtggcgg aggtgaaccg tgctgggcgg 360
 gaggagcaga caggccgcgg tcggcagggc atggccgagc ccaccgncgg tggacgtcg 419

<210> 3139
 <211> 158
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-E9

 <400> 3139

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 attgacctga ttgaccattg gaattgaaaa gaaaaaagta ttgttcctaaa aaaaaaaaaa 120
 atactaaatt ttacagatca tattacaaaa taaataac 158

<210> 3140
 <211> 148
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-D3

 <400> 3140

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 gttcggccaa gggcttgaag gtttcgaacc caaagttaac ctttgcctcc cttggaacgg 120
 ccttcattgt taactaccgg attccgga 148

<210> 3141
 <211> 409
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-014-Q1-K1-C10

 <400> 3141

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 ggaggcgcgc ccggacaggg tcattctcgc ggcgctcctc gccgcgtgcc gcgtgcacgg 120
 ccgggttgac gttgccgagc ggggtggccg gctcatgcgc cggtatgccg ttgcgtgaaa 180
 actcggggtc tgactaatgc atcatcagtt gaagacttga agcgcagttc agacctgtga 240
 tctgaaataa tcattcatcg ccatgcattt tttgggttga ttgcttgctt ggacacgaat 300

cggactaaga aatactccat agctggcaat gtggtagcgt tgcttgtaag tgcattgtat 360
gttttcagtc attcatgcag cangagcccc tcctggctag taaaatcag 409

<210> 3142
<211> 418
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C11

<400> 3142

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aggggtgttg tcgttgccct cgctctcctg gctctcgtg cgagcgccac ctccacgcat 120
acaagcggcg gctgcggctg ccagccaccg ccgccgggtc atctaccgcc gccggtgcat 180
ctgccacctc cggttcacct gccacctccg gtgcatctcc caccgccggt ccacctgccg 240
ccgccggtcc acctgccacc gccggtccat gtgccgccgc cggttcattt gccgccgcca 300
ccatgccact acctactca accgccccgg cctcagcctc atccccagcc acacccatgc 360
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<210> 3143
<211> 399
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C12

<400> 3143

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tgctcgcaag ctctatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg 180
gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcgc agctggcatc 240
ttacctttat cacccttggt cctccaacaa tcatcagccc tattacaaca gttacctttg 300
gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgcct actctcagca acagcagttt cttccattc 399

<210> 3144

<211> 395
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-014-Q1-K1-C2

 <400> 3144

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 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
 atcttacctt tatcaccctt gttccttcaa caatcatcag ccctattaca tcagttacct 300
 ttggtgcatt tattggcaca aaacatcaag gcacatcaac tacaacaact tgtgctagca 360
 aaccttggtt gctactttca gcaacagcag tttct 395

<210> 3145
 <211> 428
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-014-Q1-K1-C3

 <400> 3145

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 cacaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
 gtgaaaaccc aattcttcaa ccctatagga tccaacaggc aatcgcagct ggcattctac 240
 ctttatcacc cttgttcttc caacaatcat cagccctatt acagcagtta cctttggtgc 300
 atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 360
 ctgcctactc tcagcaacaa cagtttcttc cattcaacca actagctgca ttgaactctg 420
 cttcttat 428

<210> 3146
 <211> 383
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C4

<400> 3146

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gaaaaggctc aggtactacg tcgttgatga actgcctcca cacctgctgc gaccagaaga 120
cgctgaagaa gtgggttttc atcgacatga cagtaggcta aatccagtcc cagagaacaa 180
attgaagcac cactctccag taccgcacag cagcacagct cttctattca ccgatcccga 240
tggatatggg cagcggctcg tcacctgtta tcaccgatcc gatatcgata agcccaccgg 300
tgctgggacg cttgacgtcg aacctgatgc cgttctcggt catgtccgga ggctgcttcc 360
tcagtcctag catgagcgcc agc 383

<210> 3147

<211> 91

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C5

<400> 3147

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aatatatgca tcataataaa gttttggttt t 91

<210> 3148

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C6

<400> 3148

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tctgcaagtg ctgctacggc gaccattttc ccacaatgct cacaagctcc tatagcttcc 120
cttcttcccc cgtacctctc accagcggtg tcttcggtat gtgaaaaccc aattcttcaa 180
ccctatagga tccaacaggc aatcgcagct ggcattctac ctttatcacc cttgttcttc 240
caacaatcat cagccctatt acagcagtta cctttggtgc atttattggc acaaaacatc 300
agggcacatc aactactaca acttgtgcta gcaaaccctg ctgcctactc tcagcaacaa 360

cagtttcttc cattcaacca actagctgca ttgaactctg cttcttattt gcaacatcaa 420
catctaccat tcagccagct atct 444

<210> 3149

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C7

<400> 3149

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aagtagtaag tttattttcc tttatctaaa aaagaagtaa tttattctaa gatggctgtg 180
gtgttattta tgcttgatca tggataaagg actcttttgc ttaagcaaca tcctagtttt 240
aaattaacca ctgggacctt gaataatggc ccctacgata actttagtaa gtgatagatg 300
ataaagagat atttatcagt ttaacggagt tgtgccaatc ggtgaaggat attaaagtgt 360
acttaatgta tatctcaagt tcctgtatca 390

<210> 3150

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C8

<400> 3150

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ttcgatccac atcggccagg ccggtatcca ggtcggaaac gcgtgctggg agctgtactg 120
ccttgagcat ggcattcagg ctgacggcca gatgcccggc gacaagacca ttgggggagg 180
tgatgatgct ttcaacacct tcttcagtga gactggtgct gggaagcacg tgccccgtgc 240
tgtttttgtt gaccttgaac ccactgtcat cgatgagggt aggactggca cctaccgcca 300
gctcttccac cctgagcagc tcatcagtgg gaaggaggat gccgccaaca actttgcccc 360
tggtcactac accattggca aggagattgt tgacctgtgc cttgatcgca tcaggaagc 419

<210> 3151
<211> 404
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-C9

<400> 3151

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tgctgategt tgcccttgct ctctggcgc tcgctgcgag cgccgcctcc agtacaagcg 120
gctggctgtgg ctgccagaca ccaccgtttc atctaccgcc tccgttctat atgccgcctc 180
cgttctatct gccgccgag cagcagccgc agccatggca ataccact caaccaccgc 240
agctaagccc gtgccagcag ttcggatcct gctggcgcg cagcgtcggc agcccgttcc 300
tgggcccagtg cgtcgagtgc ctgaggcacc agtgcagccc ggcggcgacg ccctacggct 360
cgccacagtg ccaggcgctg cagcagcagt gctgccacca gatc 404

<210> 3152
<211> 444
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D1

<400> 3152

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cttaacgcga caattttcct tcaatgctca caagctccta tagcttcctt tcttccccca 180
taccttccat caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt 240
caacaagcaa tcgcagcaag caacatacct ttatcgccct tggtgtttca acaatcacca 300
gccctatctt tggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc 360
gtgctacctg tgatcaacca agtagctctg gcaaaccctt ctccctactc tcagcaacaa 420
caatttcttc cattcaacca actg 444

<210> 3153
<211> 412
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D10

<400> 3153

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cttgcaattgc tgtcgcactc gctcagctat ctccaccgct attggttggt gtttggttac 120
ccacgccttg ctctctgata ccagttgata gcagcagcag ctagctatag gttgtcagca 180
ggatcgacca gatagatagc gcgcgcggat cggagttaac agcgctgcag gatggtgaag 240
agcacgacga cgatgggggc ggcgagctgc ggcggcggcg tgctgccgct ggcgtcgtg 300
aaccacatca gcatcgtgtg ccggtcgggtg gaggcgtcgc tgcgcttcta cacggatgtg 360
ctcggcttcg tccccatccg ccgccccggc tctttcgact tcggcggcgc ct 412

<210> 3154

<211> 413

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-D11

<400> 3154

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tgtctggagc cggcgaggag gataagaagc ccgcggaggg cggcgccac atcaacctta 120
aggtcaaggg acaggatggc aatgaggtgt tctttcgcat aaagaggtcc acccagctga 180
agaagctgat gaacgcctat tgcgaccgcc agtctgtgga catgaatgcc attgcattcc 240
tgtttgatgg ccgcaggctt cgcggcgagc agaccctga tgagctggag atggaggacg 300
gcgacgagat cgacgccatg cttcaccaga ccggaggcag cgttcctagc accacctaata 360
agcagcagct gcggagcctc gttttgctct ccgncctgcg tagtactaaa caa 413

<210> 3155

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-D12

<400> 3155

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 tccttatgct ccttgggtctt tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
 cacaagctcc tatagcttcc cttcttcccc catacctctc accagcgggtg tcttcaatgt 180
 gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcatca ggcattcttac 240
 cattatcacc cttgttcctc caacaaccgt cagccctatt acagcagtta cctttgggtcc 300
 atttgggtggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 360
 ctgcatactc tcagcaacat cagttttcttc cattcaacca actgggtgca ttg 413

<210> 3156

<211> 359

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-D2

<400> 3156

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 ggtcttcgcc ccgtaccgtc ccgagcagag cgcagtccta tgctgagctg ggatggcgga 120
 cgccaagcag cagcagcagc agcagcagca gtcacagcag gcgggtgcgg tagccaccgg 180
 cgtgtggaag acggtcaagc ccttcgttaa cgggtgnggc tctgggatgc tcgcgacctg 240
 cgtcatacag cctatcgaca tgggcaagggt gaggatccag ctgggcgatg gctgctgtgg 300
 tcatggtacc aggcacatgc gttgcaacga cgggtggccgg tccttctacc aggggttgg 359

<210> 3157

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B9

<400> 3157

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 ccacagttcc tcccaccagt tacttcaatg ggcttcgaac acctagctgt gcaagccaac 120
 atgcaacaac aagcgcttgc ggcgagcgtc ttacaacaac caattgcccc attgcaacaa 180
 caatccttgc cacatctaac aatacaagcc atcacaacgc aacagcaaca acagttccta 240

ccagcactga gccacctagc catggtgaac cctgccgcct acttgcaaga gcagctgctt 300
 gcatccaacc cacttgctct ggcgaaacgta gttgcaaacc agcaacaaca acagctacaa 360
 cagtttctgc caacgctcag tcaactagcc atggtgaacc c 401

<210> 3158

<211> 408

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-032-Q1-K1-H12

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 ccaaaccgtg tgactgaaag cttcatcatg gacaccatcc agcccatctt taaaaaaaaac 180
 aagtacttaa gacttgcggt cattttctct tcagtaagtt taaggccaaa ggagacgagt 240
 aacaaggact tggatgcgac tgctttgctt tgcattggtca atgggctcga actgaagcat 300
 gaatattctt gagtgcncag gaaaatgggt gataggcttc aagaattaag caagaaatca 360
 gatgggaagg tctttggcat cgatttgctg accgacttgc tggaaaga 408

<210> 3159

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H2

<400> 3159

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 gagattttcc atccttatgc tccttgctct ttctgcatgt gttgctaacg cgaccattat 120
 tcctcaatac tcacaagctc ctatagctgc ccttctttcc ccataccttc catcaatgac 180
 cgcttcagtt tgtgaaaacc cagcccttca accctacagg ctgcaacaag caatcgcaac 240
 aagcaactta cctttatcac ccctgatctt tcaacaatcg ccagacctat ctttggtgca 300
 gtcattggta caaacatca gggcacaaca gctgctacaa ctctgtgtac cagtgtacag 360

ccaagtagct ctggc

375

<210> 3160

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H3

<400> 3160

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agtaacattt acggggaact tcaatgagta ttttggcttt gccaccgatg tagatgcagt 120
ggtttacttg atgctggtaa atgatctaata tcatggactt taccctgagg ctgtaaccat 180
tggatgaagat gttagtggaa tgcctacatt tgccttcctt gttcacgatg gtggggtagg 240
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tgatgaaact tggaagatgg gtgatattgt gcacacactg acaaatagga agtggttaga 360
gaagtgtgta acttatgctg aaagtcatga tcaagcatta gtcggcgaca agactattgc 420
gttttgggtg atgg 434

<210> 3161

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H4

<400> 3161

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gccgtgcggg ggctcgggac gggaacggga caggaccca aaatctcaga tccttcctgc 120
ccgcccgcgc gtgcccgtcg acgcgtcggt cttgccggcc gcgccttacc tacgccctct 180
cctactccag ggggatcgga tacgccacag gctgcgcgat ggtgctgtgg gtcttcggct 240
acggctccct catctggaac cccggttctt acttcgacga caaaatcctc ggcttcatca 300
agggctacaa gcgcaccttt aatctcgctt gcattgacca cagaagcaca ctggaacatt 360
cgggcaggac ctgcacgctt gaaaccgacg actaggcca 399

<210> 3162

<211> 408
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-H5
 <400> 3162

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 ttagcgagct acctgcagca cgtcgtactt acttcttgac acatctacac ctgctgcctt 180
 tcaactagca gtttgcggt aaccgcgcaa ctctcttaca actactacaa ttgctgacct 240
 ttgcccaact tgctttgaca aacctgcag cctcctacca acaacacatc attggcgggtg 300
 ccctctctta gattgactat tagacgtaat tcaataataa agtacttcgt atgatgtatg 360
 acaccaacca gaactaagac gttacatctg cagattcttc aagcaggt 408

<210> 3163
 <211> 384
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-H6
 <400> 3163

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 ggaggagcag acaggccgcg gtcggcaggg catggccgag cccaccgccg gtggacgtcg 180
 cttgggatta ggtcgcccgg ccccggtta acgatccaga tcaagcagta ctcgactacc 240
 gccactacac tacctgctct gctcgtgtct tgtttccagt tttctttctc tgtaagcggc 300
 gtagggtttg ccaaactttt atgtacgaat tatgaatatc aataaagtcg atctgctgct 360
 gcgttaaaaa aaaaaaggtg nttg 384

<210> 3164
 <211> 432
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-H7

<400> 3164

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gcagccaaaa tatTTTgcct ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg 120
accattttcc cgcaatgctc gcaagctcct atagcttccc ttcttcccc gtacctctca 180
ccagcgggtgt cttcgggtatg tgaaaaccca attcttcaac cctacaggat ccaacaggca 240
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catcagttac ctttgggtgca tttattggca caaaacatca gggcacaaca actacaacaa 360
cttgtgctag caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa 420
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<210> 3165

<211> 374

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H8

<400> 3165

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ggatatttaac aaaattaaag ctagacttgg tggacgaatg aggcttatga cttcagggtgc 120
ttctccattg tcaccagatg tcatggaatt tttagaata tgcttcgggtg aagttcttga 180
agggatatgga atgacagaga catcttgtgt catcagtaca atgaatattg gtgacagatc 240
aattggacat gttggatctc caaatccttc ttgtgaagtt aaacttgtgg acgtcccaaa 300
aatgaattat acttccgaag atcaacccta tccttgtgga aagaattggg ttaagggacc 360
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<210> 3166

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H9

<400> 3166

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 acctggtgct ccgcctcagg ggtggcatgc agatttttgt gaagacattg actggcaaga 180
 ctatcacctt ggaggtggag agctctgaca ccattgacaa tgtgaaggcc aagatccagg 240
 acaaggaggg cattccccca gaccagcagc gtctgatctt tgcgggcaag cagctggagg 300
 atggccgcac tctcgcggac tacaacatcc agaaggagag cacccttcac cttgttctcc 360
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<210> 3167

<211> 250

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A1

<400> 3167

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 tcaatatttg aaaaccacc tctttaacct tataagctcc aacaagcaat ctcatcaagc 180
 aacatacctt tattaccctt gtttcaacaa tctccaacct tatctttatt tcaatcattt 240
 gtacaaacca 250

<210> 3168

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A11

<400> 3168

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 aacaatagag caacaatggc ggtcgagaag ttaccatcct tatgctgctt gctctatatg 120
 catagtgttg ctaacgccac catttttact gattactgac aagctattat agctgtcctt 180
 attcaccaaa acgttgcatg aatgaccgct gcagttcaga tgaaaacca gaccttcaac 240
 cctacaggct tcatcaagca ctcgcaacaa gcaacttacc tgtatcacca ctgtacattc 300
 aacaattatc agccatatct ttgcagcaaa cattgctaca aacgatgact aactgcagt 360

tggatcaact tgtgctagca ctgatcagac gcatatgttt ggcacagctt aatgcctact 420
atcagcagca acggtc 436

<210> 3169

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A12

<400> 3169

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gctcgcaagc tcctatagct tcccttcttc ccccgctac ctcaccagcg gtgtcttcgg 180
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tacctttatc acccttgttc ctccaacaat catcagccct attacaacag ttacctttgg 300
tgcatttatt ggcacaaaac atcatggcac aacaactaca acaacttgtg ctagcaaacc 360
ttgctgccta ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact 420
ctgctttt 428

<210> 3170

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A2

<400> 3170

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cttcccttct tccccgtac ctctcaccag cgggtgtcttc ggtatgtgaa aaccaattc 180
ttcaacccta caggatccaa caggcaatca cagctggcat cttaccttta tcacccttgt 240
tcctccaaca atcatcagcc ctattacatc agttaccttt ggcgcattha ttggcacaaa 300
acatcagggc acaacaacta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360
aacagcagtt t 371

<210> 3171
<211> 399
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A3

<400> 3171

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cgacctaaca ccaaggctta ccaagatagt aggggttctt gcacttgctg cccttgtaac 120
gatcgcaaca aatgccttca ttattccaca atgctcactt gtccttagtg ccattatacc 180
acaggtgctt ccaccaggta cttcactggg ctttgaacat tcaaccatgc aagcctacat 240
gctacatcta gcgctagctg taagcgctt acaactacca cttgccaat tgctacaaca 300
atacttgcca catctaacc tactgaccat tgccacgcag caacaacaac tacaacagct 360
tctgccatca ctgatccacc gtatactgtg agaaccctg 399

<210> 3172
<211> 362
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-033-Q1-K1-A5

<400> 3172

attgagacca acaagcaaca tagaaagtgg aatccagtag caacaataga gcgacagggc 60
gaccaagata ctttccctcc ttatgctcct tgctctttct gcatgtgttg ctaacgcgac 120
aattttccct caatgctcac aagctcctat agcttccctt cttcccccat accttccatc 180
aatgatagct tcagtatgtg aaaaccagc tcttcaacc tataggctcc aacaagcaat 240
cgcagcaagc aacatacctt tatcaccctt gtttcaacaa tcgccagccc tatctttggt 300
gcagtcattg gtacaaacca tcaaggcaca gcagctgcag caactcgtgc tacctgtgat 360
ca 362

<210> 3173
<211> 398
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H11

<400> 3173

agacaaagga gctgataaac agacttggtg ctggagttaa tgcagggcgt gcttccggcg 60
agcagaagaa attggagaag cttgaaaaag aagggttgat tgagaaacct ttccaaagga 120
agcagctaaa gatcagattc cctgagcgtg gaagaagtgg gagaactgtg ttgacgataa 180
acaatcttca attcggattt gagaataaga ctttgttcaa caatgctaata ctgatagtag 240
agagaggtga aaagatagct attattgggc ccaatgggtg tgggaagagc aactgctta 300
aacttatgtt ggggatggag aagccacaag gtggtgaggt gcttcttggg gagcataatg 360
tgttgccgaa ctattttgag cagaatcagg cagaagct 398

<210> 3174

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F7

<400> 3174

actaattacc atgcacctat caccatgggtg gttaccggta tgtgaaaacc caattctgca 60
accttacagg atccaactgg caagcttatc tacaatctta ccttcatcaa ccatgcagct 120
agatcaatga tgagacctat gacaacagtt acgatacagc gcatgtattg gcacatatca 180
taacgggaca gcaactacga caactcgcgc taacaaacgt tgctgtctac tctaagcaac 240
cgcattgcct tgcattcaac caactagggt catcgaactc tgattattat ttgcagccat 300
ctcaactacc attcagacag ctacctgatg actaccccca gcagtctgat gcattcaacc 360
aactagcagc attgaactct actgcttatt tacaggcaca acaactactg ccattc 416

<210> 3175

<211> 295

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F8

<400> 3175

cagccgcaaa gcggccaggt cgcggggctg ttggcggcgc agatagcgca gcaactgacg 60

gcgatgtgcg gcctgcagca gccgactcca tgcccctacg ctgctgccgg cgggtgtcccc 120
 cactgaagaa actatgtgct gtagtatagc cgctggctag ctagctagtt gagtcattta 180
 gcggcgatga ttgagtaata atgtgtcacg catcaccatg ggtggcagtg tcagtgtgag 240
 caatgacctg aatgaacaat tgaaatgaaa agaaaaaaag tactccatct gttcc 295

<210> 3176
 <211> 284
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F9

<400> 3176

cggacgcgtg ggctagcaac atagaatgca caatagtgtg ccaacaatgg cagccagaat 60
 attttgctc cttatgctcc ttggtatttc tgcaagtgtc gctacggcga ccagtactag 120
 ctaccagggt taaaaaaaaa agagtgagtc ggcgcgacgt gcaaggcgca gcatgtgtac 180
 tgtgcgcgtg caaatccaga atgacgtagc tctgacgtgg gctcgcaata ttctcgcgtg 240
 ttcgttaciaa taatgataat aactatgagg aataaaaaaaaa agaa 284

<210> 3177
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G1

<400> 3177

gcacaatagt gtaccaacaa tggcagccaa aatattttgc ttccttatgc tccttgggct 60
 ttctgcaagt gctgctaccg caaccatttt cccacaatgc tcacaagctc ctatagcttc 120
 ctttcttccc ccatactct caccagcggg gtcttcagta tgtgaaaacc caattcttca 180
 accctacagg atccaacagg caatcgcagc aggcatttta cttttatcac ccttggttct 240
 ccaacaaccg tcagccctat tacagcagtt acctttgggt catttggttg cacaaaacat 300
 caaggcacia caactacaac aacttgtgtc aagaaacctt gctgcctact ctgagcaaca 360
 gcaggttctt ccattcaacc aactggctgc attgaactct gctgcttatt gcaacaacac 420
 taccaatcag tca 433

<210> 3178
 <211> 401
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G11

<400> 3178

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatattt gcctccgtat 60
 gctccttggg ctttctgcaa gtgctgctac ggcgaccatt ttcccacaat gtcacaagc 120
 tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtt ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggacaaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa caacagtttc ttccattcaa ccaactagct g 401

<210> 3179
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G12

<400> 3179

gaccaactag caacatagaa agcacaatag tgtaccaaca atggcagcta aaatatgggtg 60
 cctccttatg ctccttgggtc tttctgcaag tgctgctacg ggcgaccattt tcccacaatg 120
 ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccaacgg tgtcttcggg 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
 acctttatca cccttggttc tccaacaatc atcagcccta ttacagcagt tacctttggg 300
 gcatttattg gcacaaaaca tcaaggcaca acaactacaa caacttggtg tagcaaacct 360
 tgctgcctac tctcagcaac agcaagttct tccattcaac caactagctg c 411

<210> 3180
 <211> 437
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G2

<400> 3180

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcct 60
ccttatgctc cttgggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttccccc gtacctctca ccagcgggtgt cttcgggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcatcttacc 240
tttatcacc cttgttcctcc aacaatcatc agccctatta caacagttac ctttgggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgccctactct cagcaacagc agttttcttcc attcaaccaa ctaggttcat tgaactctgc 420
ttcttaattg caacaac 437

<210> 3181

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G3

<400> 3181

ggccatcggg gtcggaggat ctcaactgttt tcttccctgct gectgctgca tttttcgcag 60
gggtgtgggag ctgagttggg aggaggactg ctgcagccat gaaggccctc attctcgtcg 120
gaggcttcgg caccgcctg cgcccgctca cgctcagcgt gcccaagccg ctcgtggatt 180
tcggcaacaa gcccatgac ctgcaccaga tcgaggtctt gaaggaagtt ggtgttacag 240
aggttgctct gcccatcaat taccagcctg aggtcatgct caactttctc aaggacttcg 300
agagcaagct tggcatcaag atcacctgct cgcaggagac ggagccctc gggaccgcat 360
gcccgtggc gctggccgc gacaagctcg gcgacggatc cggcgaccct ttcttcgtgc 420
tcaacagcga cgtg 434

<210> 3182

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G5

<400> 3182

ctttggtgca tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag 60
caaaccttgc tgcctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat 120
tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta cctgctgcct 180
acccccagca atttcttcca ttcaaccaac tagcagcatt gaactctcct gcttatttac 240
agcagcaaca actactacca ttcagccagc tagctgggtg gagccctgct accttcttga 300
cacaaccaca gttgttgccg ttctaccagc acgttgcgcc taacgctggc acctcttac 360
aactgcaaca attgctgcc a ttcaaccaac ttgctttgac aaaccagca gtgttctaac 420
aacaacc 427

<210> 3183

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G6

<400> 3183

ctcatcgact ccagattgga gaactctaca ccatgaaggt gctgatcggt ggccctggctc 60
tcctggcgct cgctgcgagc gccgactaca gtacaagcgg cggctgcggc tgccagacac 120
caccgtttca tctaccgcct ccgttctata tgccgcctcc gagctatctg ccgccgcagc 180
agcagccgca tccatggcaa taccctactc aaccaccgca gctaagcccg tgccagcagt 240
tcggatcctg cggcgctgcac agcgtcggca gcccgttcct gggccagtgc gtcgagttcc 300
tgaggcacca gtgcagcccg gcggcgacgc cctacggctc gccacaatgc caagcgctgc 360
aacagcagtg ctgccaccag atcaagcaag tgga 394

<210> 3184

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G8

<400> 3184

cccacgcgtc cgcttccctt cttccccat accttccatc aattatagct tgagtatgtg 60

aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc aacatacctt 120
 tatcgccctt gttgtttcaa caatcaccag ccctatcttt ggtgcagtca ttggtacaaa 180
 ccatcagggc acaacagctg cagcaactcg tgctacctgt gatcaaccaa gtagctctgg 240
 caaacctttc tccctactct cagcaacaac aatttcttcc attcaaccaa ctgtctacac 300
 tgaacctgct tgcttatttg cagcaacaac tattaccatt tagccagcta gctactgcct 360
 actctcagca acaacaactt cttccattta accaattggc cgcactgaac cccgctgctt 420
 atttgcagc 429

<210> 3185

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-G9

<400> 3185

ctggcagcat tgaactctcc tgcttattta cagcagcaac tcgtgctacc tctgatcaac 60
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 120
 caactgtcta cactgaacct tgctgcttat ttgcagcaac aactattacc atttagccag 180
 ctagctactg cctactctca gcaacaacaa cttcttccat ttaaccaatt ggccgcactg 240
 aaccccgctg cttatttgca gcagcaaata ctactaccat ttagccagct agctgcagca 300
 aaccgtgctt cttcttgac acagcaacag ttgctgcctt tctaccagca gtttgcggt 360
 aaccccgcaa ccctcttaca actacaacaa t 391

<210> 3186

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H1

<400> 3186

attgagacca acaagcaaca tagaaagtgg aatccagtag caacaataga gcaacagtgg 60
 cgaccaagat attttccctc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
 caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180

caattatagc ttcaatatgt gaaaacccag ctcttcaacc atataggctt caacaagcaa 240
 tcgcagcaag caacatacct ttatcgccct tgttgtttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc gtgctacctc 360
 tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc 420
 cattc 425

<210> 3187
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-H10

<400> 3187

cacctgagct tgataaggag aaatcttgta gagtaggtga ggtgatcata cgtccggatc 60
 ctgagaaccc cgagtggcct aagaggatcc agacattctt tgatggtaaa aatgaagaaa 120
 ccactatggg aactcaaatt gtgtcgataa aaaaaactgg gatgtattac ctctatttta 180
 tgttctgtga tcctcaactt aagggattga agattacagg aagaactgtt tggagaaatc 240
 cacaggggta ccttcctggg aaaatggctc caatgatgac attttatggg ttcatgtcac 300
 ttgcatactt tgtacttggg cttctatggg tcattcagtt tgtgcatgc tggaaagaca 360
 ttttgcagct gcattaccat ataacaggct gtattgctct tggcatgtgt gaaatggctt 420
 tttg 424

<210> 3188
 <211> 353
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F6

<400> 3188

tccatcgaga ggccgtcgac aggggaatta atggcgctcg cgtctagcag cggccagcgc 60
 cgctcatcc tcgcagccgc cgtcctgctc tccgtgctcg cggctgccag cgccagcgcc 120
 gggacctcct gcgtgccggg gtgggccatc ccgcacaacc cgctcccag ctgccgctgg 180
 tacgtgacca gccggacctg cggcatcggg ccgcgcctac cgtggccgga gctgaagagg 240

agatgctgcc gggagctggc ggacatcccg gcgtactgcc ggtgcacggc gctgagcatt 300
ctaattggacg gcgcatccc gccgggcccc gacgcgcaac tggagggccg tct 353

<210> 3189
<211> 458
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E11

<400> 3189

cggtccggat tcccgggcta tctgccgctc cagcctttcg ctagggttta tccaccggcg 60
gcgcgcgca cggcggcaag atggtgcagg gtctgacctt ccgcaagcgg cacagctatg 120
ccacgaagtc caaccagacg cgggtcgta agacccctgg tggcaagctc gtgtaccagt 180
acaccaagaa gagagccagc gggcccaagt gtcccgtagc cgggaagaag atccagggca 240
ttccccatct gaggccagct gactacaaa ggtccagggt gtctaggaac cgcagaactg 300
tgaaccgtcc ctatggggga gtactatctg gaactgcagt tagagaaagg atcatccgtg 360
ctttcctggt tgaagagcag aagattgtca agaaagtgtt gaaattacag aagaccaaag 420
acaagacttt ctcaaaaagt aactctgtaa cagaagtg 458

<210> 3190
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E2

<400> 3190

tgagcattca gaaacacacc aagcgaagca cattagcaac aacctaacaa caatggggac 60
caagatatta tcctccttg cgttcttgc gctttttgag agcgcaacaa atgcgttcat 120
tattccacaa tgctcacttg ctccaagttc cattattaca cagtctctcc caccagttac 180
ttcaatgggc ttggaacacc cagctgtgca agcctatagg ctacaacaag caattgcggc 240
gagcgtctta caacaacaa tttccagtt gcaacaacaa tccttggcac atctaacaat 300
aaaaccatc gcaacgcaac agcaacaaca attcctacca gcaactgagc acctagccat 360
ggtgaacct gccggctact tgcaacagca gttgcttgca tcaaaccac ttgctctggc 420

aaa

423

<210> 3191
<211> 433
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E3

<400> 3191

cactagcaac atagaaagca caatagtgt ccaacaatgg cagccaaaat attttggttc 60
cttatgctcc ttggtctttc tgcaagtgt gctaccgcaa ccattttccc acaatgctca 120
caagctccta tagcttcctt tcttccccca tacctctcac cagcgggtgtc ttcagtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagcagg catcttacct 240
ttatcacctc tgttctcca acaaccgtca gccctattac agcagttacc tttggtgcat 300
ttgttggcac aaaacatcaa ggcacaacaa ctacaacaac ttgtgctagg aaaccttgct 360
gcctactctc agcaacagca gtttcttcca ttcaaccaac tggctgcatt gaactctgct 420
gcttatttgc aac 433

<210> 3192
<211> 430
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E5

<400> 3192

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ccttatgctc cttggtcttt ctgcaagtgc tgctaccgca accattttcc cacaatgctc 120
acaagctcct atagcttcct tcttcccccc atacctctca ccagcagtga cttcagtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagcag gcattcttacc 240
tttatcacc cttgttctcc aacaaccgtc agccctatta cagcatttac ctttggtgca 300
tttgatggca caaaacatca aggcacatca actacaacaa cttgtgcttg gaaacctttc 360
tgctactctc cagcaacagc agtttcttcc attcaacca ctggctgcat tgaactctgc 420
tgcttatttg 430

<210> 3193
 <211> 427
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-E6

 <400> 3193

cttcctttct tcccccatat ctctcaccag cgggtgtcttc agtatgtgaa aaccagttc 60
 ttcaacccta caggatccaa caggcaatcg cagcaggcat cttaccttta tcacccttgt 120
 tcctccaaca accgtcagcc ctattacagc agttaccttt ggtgcatttg ttggcacaaa 180
 acatcaaggc acaacaacta caacaacttg tgctaggaaa ccttgctgcc tactctcagc 240
 aacagcagtt tcttccattc aaccaactgg ctgcattgaa ctctgctgct tatttgcaac 300
 aacaactacc attcagtcag ctagctgctg cctaccccca gcaatttctt ccattcaacc 360
 aactggcagc attgaactct gctgcttatt tacaacagca acagctacca ccattcaacc 420
 agctagc 427

<210> 3194
 <211> 337
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-E7

 <400> 3194

gcaatttctt ccattcaacc aactagcagc attgaactct gctgcttatt tacagcagca 60
 acaactacta ccattcagcc agctagctga tgtgagccct gctgccttct tgacacaaca 120
 acagttgttg ccgttctacc tgcacgctat gcctaacgct ggcaccctct tacaactgca 180
 acaattgctg ccattcaacc aacttgcttt gacaaacca acagtgttct accaacaacc 240
 catcattggt ggtgccctct tttagattgc ttatgagtta tagttcaata atgaagtttt 300
 ttggatgaaa aaaaaaaaaag ctaagctgat gactacc 337

<210> 3195
 <211> 411
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E8

<400> 3195

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tcgttgcctt tgctctcctg gcgctcgctg cgagcgccgc ctccagtaca agcggcggct 120
gtggctgcca gacaccaccg tttcatctac cgctccggtt ctatatgccg cctccgttct 180
atctgccgcc gcagcagcag ccgcagccat ggcaataccc cactcaacca ccgcagctaa 240
gcccgtgcca gcagttcgga tcttgccggc tgggcagcgt cggcagcccg ttcttggggc 300
agtgcgtcga gttcctgaag caccagtgcg gcccggcggc gacgccctac ggctcgccac 360
agtgccaggc gctgcagcag cagtgcctgc accagatcag gcaggtggag c 411

<210> 3196

<211> 405

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-032-Q1-K1-E9

<400> 3196

atcacactct ccagtaaccg tccgctactc cagccgcata tctagccgag tctatcgcct 60
cctcctccgc cgccgcagct atcctaattg ctcgcttcgc cgtggtcgcc gccatcgtcg 120
cctcctcgc cgtcgtcgcg gcggcgcagg ccccgccgcg caccgacc acagctccca 180
aggccgcgcc caggatggcc ccgctgccgc ctccccctgc gcgggtccccg gccacagccc 240
cggcgcgggc cgccaagccg ccgaccgccg cggcgcggtc cccgctggcc tctcctccgg 300
ccccgcccac cgagggcccc gccgcctctg cgccgtccgc gaaggccccg acctcgtcgg 360
tctccaccac cccggccggc gccncaccg tcgcgccttc cggca 405

<210> 3197

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F1

<400> 3197

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 atcctctgat tcagagcagg gtgttggcat tgatcagacg cctgccatgg cggatcagtt 120
 cgaggattcg gcgaacaatg tgatcattga ggaggtgaac aagggcctga acccaggaat 180
 ggtggttctg cttgtggttg caagcttctt gctgatcttc tttgtgggga actatgcgct 240
 gtatgtgtat gcgcagaaga cgctcccgcc aaagaagaag aagccggtgt cgaagaagaa 300
 gctgaagaag gaaaagctga agcagggggg ctctgcgccg ggagagtaaa cggccatgct 360
 gccgatcctt ccgtccagag ctccatttca catgattatt agagaaaaaa attatatata 420
 tat 423

<210> 3198

<211> 352

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F10

<400> 3198

tttgagcatt cagaaacaca ccaagcgaag cgcactagca acgacctaac aacagtggct 60
 accaagatat tagccctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc 120
 attattccac aatgctcact tgctcctagt gccattattc cacagttcct cccaccagtt 180
 acttcaatgg gcttcgaaca cctagctgtg caagccaaca tgcaacaaca agcgcttgcg 240
 gcgagcgtct tacaacaacc aattgccc aa ttgcaacaac aatccttgcc acatctaaca 300
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<210> 3199

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-F11

<400> 3199

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 aggcatatgg gacattgtgt ttcttcacca ctgtgctagt tcggctccat atcctgaatc 180

cgctgtttct gtacttatat taccctcggg tgttcaagaa gtttgaggta tggaggatat 240
 ttacaagttt cttcttcctg ggaccatttt ccataaactt tggatttcgc cttctgatga 300
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 tgtggatgat gatatttggt gccatctcac ta 392

<210> 3200
 <211> 361
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-F12
 <400> 3200

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 ttatttgcaa caacaacaac taccattcag ccagctatct gctgcctacc cccagcaatt 180
 tcttccattc aaccaactga cagcattgaa ctctcctgct tatttacagc agcaacaact 240
 actaccattc agccagctag ctggtgtgag cctgctacc ttcttgacac aaccacagtt 300
 gttgccgttc taccagcacg ctgcgcctaa cgctggcacc ctcttacaac tgcaacaatt 360
 g 361

<210> 3201
 <211> 231
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-F2
 <400> 3201

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 tttatgaagg caaaagatgg aaggttatgt tcaattaaac caatttttgg gtcacctgta 120
 gtctgttaga ttctgttgta acttgaatac tctgtggatg cactgcgggtt gctacagttc 180
 ttgtccaact tttttttgac acagtgtgtg aataaatagg cgtctgtttg g 231

<210> 3202
 <211> 398
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-F3
 <400> 3202

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 ttaaccaatt ggccgcactg aaccccgctg cttatttgca gcagcaaata ctactgccat 120
 ttagcgagct agctgcagca agtcgtgctt ccttcttgac acagcaacag ttgctgcctt 180
 tctacaagca gtttgcggtt aaccccgcaa cctctttaca actacaacaa ttgttgccct 240
 ttgtccaact tgctttgaca aaccagcag cctcctacca acaacacatc attgggtggtg 300
 ccctctttta gattgattat tagttgtaat tcaataataa agtttttttg atgatgtatg 360
 tggccaacca gaaataagaa gttacatttc cagattct 398

<210> 3203
 <211> 426
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-F4
 <400> 3203

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 ccattttttc tcaataactca caagctccta tagctgcctt tcttccccca taccttccat 180
 caatgaccgc ttcagtttgt gaaaaccag cccttcaacc ctacaggctc caacaagcaa 240
 tcgcaacaag caacttacct ttatcacccc tggtctttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cacaacagct gcaacaactc gtgctaccag 360
 tgatcagcca agtagctctg gcaaaccttt ctccctactc tcagcaacaa caatttcttt 420
 ccattc 426

<210> 3204
 <211> 417
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-032-Q1-K1-F5

<400> 3204

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tcgagggcat gatcctcttc tccgagctct cccgccgtcg tatccgctcc atctcctccc 180
tcatcaaggt tggtcgccag gagcccgcca tcgtgctccg tgcgaccgc gacaagggct 240
acatcgacct ttcaaagcgc cgcgtctccg aggaggaggc gcacgcatgc gaggacaggt 300
acaacaagtc caagctcgtg cactccatca tgcgccacgt cgcgagacg ctcgaggtcg 360
acctcgagcc gctctaccag cggattgggt ggccgctcta ccggaagtac ggtcacg 417

<210> 3205

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E10

<400> 3205

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aagatattag ccctccttgc gcttcttgcc ctttttagtga gcgcaacaaa tgcgttcatt 120
attccacagt gtcacttgc tcctagtgcc attattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacagge tacaactagc gcttgcggcg 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
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<210> 3206

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A12

<400> 3206

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agctgggtgct tgtgggttctt gcttttcattg ctttagtatac aagtgtttct tgtacacaga 180
caggcggctg cagctgtggt caacaacaaa gccatgagca gcaacatcat ccacaacaac 240
atcattcaca aaaacaacaa catcaaccac caccacaaca tcaccagcag cagcaacacc 300
aacaacaaca tgttcacatg caaccacata aacatgagca acaacaagaa gtatcatgttc 360
aacatcaaca acaacaaccg cagcaccacc accatacaac aacaacatca gcaccaac 418

<210> 3207

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A3

<400> 3207

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ccaaccgctg gacatgctgt ttacggaggc ggagctggac ctgggcctgg tccggtgctc 120
cagggtgttc cactacgggt ccatctcgtt catctccgat ccgtgccgtt cggcgccat 180
ggccgacatg cgcgcagcca atgccgcggg cgtgctctgg tcctacgacc tcaacgtgct 240
ccttcgcttc tggccgtctc ccgacgccgt acgcgagggc atcctcagca tctggaacga 300
ggccgacttc atcaaggta ggcacgacga tgtggcctta ctacgcgcg gggacgcaa 360
cgacgagaag aacgtgctgt ccctgtggtt tgacgggctc a 401

<210> 3208

<211> 197

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A4

<400> 3208

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tggcatctta cctttatgac ccttgttctt ccaacaatca tgaggcctat tacatcagtt 120
acctttgggtg catttattgg cacaaaacat cagggcacaa caactacaac aacttgtgct 180
agcaaacctt gatgact 197

<210> 3209

<211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A5

<400> 3209

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acgtcagtgt tgctgttggc acttccaagg gccttgtggt gcctgttatc cgagatgctg  180
ataccatgaa ctttgcgtgac attgagaaag ggataaacia ccttgcaaag aaggcaaagt  240
agggggcgct ctcgattgat gacatggcag gaggaacatt cactatctcc aatgggtggtg  300
tctatggaag cctcctcagc acacctatca tcaaccccc acagtcgtca attctgggga  360
tgcattccat tgtgcaacgc cctgtgggtg tgaatggtga cattctcgca aggccaatga  420
tgttcctt                                     428
  
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<210> 3210
 <211> 424
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A6

<400> 3210

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gctatcattg atggaaggta tgggggaaga agggaagcta taggagcttc agtatgtgaa  120
aaccagctc ttcaacccta taggtccaa caagcaatcg cagcaagcaa cataccttta  180
tcacccttgt ttcaacaatc gccagcccta tctttggtgc agtcattggt acaaaccatc  240
aaggcacagc agctgcagca actcgtgcta cctgtgatca accaagtagc tctggcaaac  300
ctttctccct actatcagca acaacaattt cttccattca accaactatc tacactgaac  360
cctgctgctt atttgcagca acaactatta ccattcagcc agctagctac tgctactct  420
catc                                     424
  
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<210> 3211
 <211> 437
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A7

<400> 3211

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ttccctcaat gtcacaagc toctatagct tcccttcttc ccccatacct tccatcaatt 180
atagcttcaa tatgtgaaaa cccagctctt caaccatata ggcttcaaca agcaatcgca 240
gcaagcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttggtg 300
cagtcattgg taaaaacat cagggcacia cagctgcagc aactcgtgct acctctgac 360
aaccaagtag ctctggcaaa cctttctccc tactctcagc aacaacaatt tcttccattc 420
aaccaactgt ctacact 437

<210> 3212

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A8

<400> 3212

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ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaatgat 180
agcttcagta tgtgaaaacc cagctcttca gccctatagg ctccaacaag caatcgagc 240
aagcaacata cctttatcac ccttggtggt tcaaccatcg gcaagcccta tctttggtgc 300
aatcattggt accaaccatt aaggcacaac aactgcagca actcgtgcta cctgggatca 360
acccagttgc ttttgccaaa c 381

<210> 3213

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A9

<400> 3213

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cccggacata cgtcgacgag ggcacctgca cgggtggacgc cgccggagcg ggcgtgggct 180
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acgcgtacgt gccggacctt atggcgatat gcgccagcgg ctgtcacgga gcccttggtc 300
cacctcaagg agtccatggc gaacgggtcc ggggacgacc tgaacgagct gccgttgag 360
tgccacatgg gcaccc 376

<210> 3214

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B10

<400> 3214

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ctaccaagat attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccaa gttccattat tacacagtta ctcccaccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg 240
cggcgagcgt cttacatcaa ccaatttccc agttgcaaca acaatccttg gcacatgtaa 300
caatacaaac catcgcatct caacagcatc aacaattact accagcactg agccacctag 360
ccatggtgaa ccctgccgac tacttgcaac 390

<210> 3215

<211> 327

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B11

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gcctcagcta gaagacagcg gcgtggaggc cgtggcaaac cactgccacg acctgcgcga 120

gctggatctc agcagaagct tcaggctgag cgaccggtcc ttgtacgcc tggcgcacgg 180
 gtgccctcag cttaccaagc gtaacatcag cgggtgcctc aagttcaacg gcctggcgct 240
 cggggtcctt ttcaagccat gccggaaccc ggaaaggcct gaaccgtgcc ggttgtgtaa 300
 gggcagcctc tgccaaagcg ctccagg 327

<210> 3216
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B12

<400> 3216

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 tactgctgca ggcgaatgct catgacacat gttgacctca ttgagaagtt gctcaactac 180
 aacaccctag agaagaccga gacaagttaa gcgagcacat catgctccaa aaacactact 240
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 ttgtgagtgt gaacatgctt ttcaaggact tttcatgcga cagtgtttgt tgccacctat 360
 gcaacgatgt tggatatttt aagtgatata attgctaaaa gaaagctaata gtattt 416

<210> 3217
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-014-Q1-K1-B3

<400> 3217

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 gaacccactg tcatcgatga ggtgaggact ggcacctacc gtcagctctt ccaccctgag 360

cagctcatca gtgggaagga ggatgccgnc aacaactttg cccgtggtca ctacaccatt 420
 ggcaaggag 429

<210> 3218
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B4

<400> 3218

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 caatgctcgc aagctcctat agcttccctt cttccccctg acctctcacc agcgggtgtct 180
 tcgggtatgtg aaaacccaat tcttcaaccc tacaggatcc aacaggcaat cacagctggc 240
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 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg 420
 aactctg 427

<210> 3219
 <211> 130
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B5

<400> 3219

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 gctctatatg 130

<210> 3220
 <211> 98
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B6

<400> 3220

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gcaagcaaat gcattcagtc tctgcctgtg ttctgata 98

<210> 3221

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B7

<400> 3221

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cagttcctcc caccagttac ttcaatgggc ttccaacacc tagctgtgca agccaacatg 180
caacaacaag cgcttgccgc gagcgtctta caacaaccaa ttgcccaatt gcaacaacaa 240
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gcactgagcc acctagccat ggtgaaccct gccgcctact tgcaagagca gctgcttgca 360
tccaaccac ttgctctggc gaacgtagtt gcaaaccagc aacaacaaca gctacaacag 420
tttct 425

<210> 3222

<211> 108

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-B8

<400> 3222

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aactcacatt accagattat aatgtgacaa tgctcactag atggcagt 108

<210> 3223

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-014-Q1-K1-A11

<400> 3223

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cgacggcggg tactacacgc tgagccagat caagggcgcc atgcgtcagg gcaccggctt 180
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gcccttgcat tctatgcaag aggataatgg aatgctcatt cccattctt catgttgtct 360
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<210> 3224

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G8

<400> 3224

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acatcagggc acaacaacta caacaacttg tgctagcaaa ctttgctgcc tactctcagc 180
aacagcagtt tcttccattc aaccaactag gttcattgaa ctctgcttct tatttgcaac 240
aacaacaact accattcagc cagctacctg ctgcctaccc ccagcaattt cttccattca 300
accaactagc agcattgaac tctcctgctt atttacagca gcaacaacta ctaccattca 360
gccagctagc tgggtgtgagc cctgctacct tcttgacaca accacaagtg ttgccgttct 420
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<210> 3225

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G9

<400> 3225

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ctggagggtgc gtggggcattc ggccctcttt cgcggtggcg tttcttcgtg cctgaggcga 180
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ctggcatagg tgggtctgttc ctcttcagct cgctgcttat ttaagaaacc gtgacagaga 300
atgcctgacc ttaaattctgt tgaaccaatg taccggggga ggtaaccagt gcatcagtac 360
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<210> 3226

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H1

<400> 3226

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ctgcagcaac tcgtgctacc tgtgatcaac caagtagctc tggcaaacct ttctccctac 180
tctcagcaac aacaatttct tccattcaac caactgtcta cactgaacct tgctgcttat 240
ttgcagcaac aactattacc atttagccag ctagctactg cctactctca gcaacaacaa 300
cttcttccat ttaaccaatt ggccgcactg aaccccgctg cttatttgca gcagcaaata 360
ctactgccat ttagcgagct agctg 385

<210> 3227

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H10

<400> 3227

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aaagggtttt tgtacccccg aagcccaaaa tctacagtac cgtctcagac aaaggcaaca 180
gcgagcagga tgacgaggaa cccaaggccg aagaggttcc agacaaggca ttggtcacgg 240

aagagaaggc tgaggaatta gaggatcccc ttccccaatt caaggttaca gaagtgcattg 300
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 agt 363

<210> 3228
 <211> 398
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H11

<400> 3228

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 gaccaaggag agctggtcgc cattgcaggt cccggcggtg gcattccctt ggaagccattg 120
 aggcggtggc aagaccggcg gcctcgagtt ccctcgccgg gcgatgttcg ccagcgctcg 180
 cctcaacgtg tgcccggaag tcccggccgg gcgcgacccg cgggagcccc atcccaaggt 240
 cgtacggggc gccgacaact gcgacatcgc gcgccagctt gtcgccgccg ttcccggaca 300
 gcaggccgcc tgagaggccg atgaagaggc agcgaacagg aggaagcaga atggcgggcg 360
 cagctagaag cagcaacagc tgggcgatct gagcctga 398

<210> 3229
 <211> 257
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H12

<400> 3229

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 tcctagtggc attataccac agttcctccg accagttact tcaatgggct tcgaacacct 180
 agctgtgcaa gcctacaggc tacaacaagc gcttgccggcg agcgtattac aacaaccaat 240
 tgaccaattg caacaac 257

<210> 3230
 <211> 350

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-013-Q1-K1-H2

<400> 3230

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 ctgcagcatc tcggtgtacc tgtgatcaac caagtagctc tggcaaacct ttctcactac 180
 tatcagcaac aacaatttct tccattcaac caactgtcta cactgaaccc tgctgcttat 240
 ttgcagcaac aactattacc atttagccag ctagctactg cctactttca gcaacaacaa 300
 cttcttacat ttaaccaatt ggccgtactg aaccccgctg cttatttgca 350

<210> 3231
 <211> 383
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-013-Q1-K1-H3

<400> 3231

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 cgttctcgtc gtgtgcttgg ctctgtcagc tgccagcgcc tctgcaatgc agatgccctg 120
 cccctgcgcg gggctgcagg gcttgtacgg cgctggcgcc ggccctgacga cgatgatggg 180
 cgccggcggg ctgtaccctt acgcggagta cctgaggcag ccgcagtgca gcccgctggc 240
 ggcgggcgccc tactacgccg ggtgtgggca gacgagcgcc atgtaccagc cgctccggca 300
 acagtgtctc cagcagcaga tgaggatgat ggacgtgcag tccgtcgcgc agcagctgca 360
 gatgatgatg cagcttgagc gtg 383

<210> 3232
 <211> 408
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-013-Q1-K1-H4
 <400> 3232

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 tttgctcctt tatgtctcctt ggtctttctg caagtgtctg tacggcgacc attttcccgc 120
 aatgctcgca agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt 180
 cggatatgtga aaacccaatt cttgaacctt acaggatcca acaggcaatc gcagctggca 240
 tcttaccttt atcacccttg ttactccaac aatcatcagc cctattacaa cagataccta 300
 tgctgcatcc atcggcacaa tacatgcccc tacaagctgt acggaacctg gtgcgatcgc 360
 agcacctga tccctgtcca gtgcgtcgag ttcttgaggc atcaatgc 408

<210> 3233

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H5

<400> 3233

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 ctcgtcggcg acgtcccctg gaagatgttc gtggaaacct gccagcgctt tcgtctgatg 120
 aaaggttcag aggccgtgaa cttggcacca agagccgccc gatgaggcac actccgttgg 180
 gcgttggcac gcacgcacgc actggcgtct tgaaggaaag ggggaactct gctggctctg 240
 atgaggatct tcacgtgaga taggaacgtg tgtacagttg tcgccttatg gtattgagtt 300
 gaggaaactt ggaagttcca ttacttgtct gtagtctcta ctttatatag atgcgaagaa 360
 gottgagata cacattgcct acattgtctt 390

<210> 3234

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H6

<400> 3234

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 cttggtcttt ctgcaagtgc tgctacggcg accattctcc cgcaatgctc acaagctcct 120
 ataactttcc ttcttcccc gcacctctca ccagcgggtg cttcggtatg tgaaaacca 180

attcttcaac cctacaggat ccaacaggca atcgagctg gcattctacc ttaatcacc 240
tagctactac aacaatcaac acacctatta caacactaac ctctggtaca tttatcgaca 300
caccacatca cagcacaaca actacaacaa cttgtgctag caaaccttgc tgcctacttt 360
caacaacagc agtttcttcc attcaaccaa ctaggttcat tgaaatcctg ttcttatttg 420
caacaacaac 430

<210> 3235

<211> 321

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-H7

<400> 3235

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gtcggggagg ccattgctgc cgtggtcgag aggtacgcca gggaggggag aagcccgcgc 120
ctggaccccg ccgcagccga gagcttccaa cttcaccact cccacttcag ccttgagagt 180
ctgaacaaga aggacagaat cggagacgtg ggaggtagga acttctacct gcacaagaac 240
gattcaagca acgacgggct ctacctccag ggccaggagg agcccgggtgc agatccaagt 300
ggtggtgaca tcagccggca c 321

<210> 3236

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-H8

<400> 3236

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ggctgccagc caccgcccgc ggttcatcta ccgcgcctga ggtggtgggc atgtccatca 120
aggaggcaag agagatcatt cttaaagaca tgcccaacgc taacattcaa gttctaccgg 180
ttggctcgct tgtgacccaa gactttcgcc ctgatcgtgt tcgcattctc gttgatattg 240
ttgccagac tccaacagtt ggctgacaag gatatgcctt atctataggc caaataaaca 300
aagcctactt ttatgtatca tggctaataa atcctacatc tcttggnat ccttgatcgg 360

tttagcttat tagctatatc gccatcaaag gggcccccaa gaaattacct gtatgtctat 420
cataaaaaatc 430

<210> 3237
<211> 426
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-013-Q1-K1-H9

<400> 3237

cttctctccg ggctacatcg gcttccccgc cgacgccgctc gacctctcca cccgcctctc 60
ccgccgcata ccgctatcca tccccctgcgt cgcgtctccg atggacactg tctccgagggc 120
cgctatggcc gcggccatgg catcactcgg cgccgccgcc gtcgtgcact gcaacaccga 180
tccccacgcc caggccgcca tcgtccgcgc tgccaagtcc cgccgccttc ccttcgtttc 240
ctccgtgccc tttttctccc cgctctccgc cccgacgctc aacgatttcg ctggcagcga 300
gtacgccttc gtcaccgagc gcggagattc gctctccagg ctcgctggcg tcgctgtcgc 360
ggccgatgct gcctnccgcg aggttcccgt ctctgtctcg gactacatgc gaccgacgcc 420
gcgctc 426

<210> 3238
<211> 423
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-014-Q1-K1-A1

<400> 3238

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tggcttccaa cattgggttaa gaggaattcc aacttaacca tgggggtaat ggtcaatgtc 120
aactttgcc aatcgaccac aacaggacac ctaatctaca accttgaagg cattgacaag 180
cgtgtgatca agaggttcaa gaaggaggct gctgaaatga acaagcggct cttcaagtac 240
gogtgggtgc tcgacaagct caaggctgag cgtgagagag gtatcaccat tgatatcgct 300
ctgtggaagt ttgagaccac caagtactac tgcacgggtc ttgatgcccc tggacaccgt 360

gacttcatca agaacatgat cactggtacc tnccaggetg actgtgctgt ccttatcatt 420
gac 423

<210> 3239
<211> 407
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-014-Q1-K1-A10

<400> 3239

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gggccacctg ccgccgccgg tccacctgcc accgccggtc catgtgccgc cgccggttca 120
tctgccgccc tcacatgcc actaccctac tcaaccgccc cggcctcagc ctcatcccca 180
gccacacca tgcccgtgcc aacagccgca tccaagcccg tgccagctgc agggaaacctg 240
cggcgttggc agcacccca tccctgggcca gtgcgtcgag ttcttgaggc atcagtgcag 300
cccgacggcg acgccctact gctcgccctca gtgccagtcg ttgcggcagc agtggtgcca 360
gcagctcang caggtggagc cgcagcaccg gtaccaggcg atcttcg 407

<210> 3240
<211> 333
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G7

<400> 3240

aacatagaaa gcacaatagt gtaccaacaa tggcagccaa aatattttgc ctctgatgc 60
tccttgggtc ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc 120
ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc 180
caattcttca accctacagg atccaacagg caatcacagc tggcatctta cctttatcac 240
ccttggttct ccaacaatca tcagccctat tacatcagtt acctttgggtg catttattgg 300
cacaaaacat caaggcacia caactacaac aac 333

<210> 3241

<211> 413
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-013-Q1-K1-F10

<400> 3241

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 gccaatggct accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac 120
 aaatgcgttc attattccac agtgcctcact tgctcctagt gccattattc cacagttcct 180
 cccaccagtt acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggctacaact 240
 agcgcttgcg gcgagcgctt tacaacaacc aattgcccaa ttgcaacaac aatccttggc 300
 acatctaacc ctacaaacca ttgcaacgca acaacatcaa catcaacagt ttctgccatc 360
 actgagccac ctagccgtgg tgaaccctgt cacctacttg caacagcagc tgc 413

<210> 3242
 <211> 418
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-013-Q1-K1-F12

<400> 3242

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 ctgttcacgt gtaagttttg gtggtgaact caaggactcc gtgatgatgg gagcggacac 120
 ctatgaaact gaagaagaag cttcaaagct actgtagctt gggaagggtcc cagttggaat 180
 aggaaggaac acanagataa ggaactgtat cattgacatg aatgctagga ttgggaagaa 240
 cgtgggtgatc acaaacagta agggcatcca agaggctgat cacccggaag aagggtacta 300
 cataaggtct ggaatcgtgg tgatcttgaa gaatgcaacc atcaacgatg ggtctgtcat 360
 atagatcggc tgcgttttgcg tctacataac atgaacctac aatgggtatng catcgatg 418

<210> 3243
 <211> 166
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-F2

<400> 3243

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ttggtttggc taaccctgct ggctacttgc aacagatgcg tccattccac caaatgactg 120
gggtcaaagct tgctgggtac ctacgacagc gaccaccggt aattaa 166

<210> 3244

<211> 118

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-F4

<400> 3244

tgggaggcca tcgcttttcc gtcccaacaa ccaccgtta ttccgccgc cctgcaagg 60
gggttaatca aaacctctta ttgggaaca agctcctgcc gattcaatca acctcaa 118

<210> 3245

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-F5

<400> 3245

gggggggctg cggctgccag ccacctccgc cgggttcatt accgccgccg gtgcatctgc 60
cacctccggt tcacctgcca cctgcggtgc atctgccacc gccggtccac ctgccgccgc 120
cgggtccacct gccaccgccg gtccatgtgc cgcgcgcggt tcattctgcc cgcgcccat 180
gccactaccc tactcaaccg ccccggtctc agcctcatcc gcagccacac ccatgcccgt 240
gccaacagcc gcatccaagc ccgtgccagc tgcagggaac ctgcggcggt ggcagcacc 300
cgatcctggg ccagtgcgtc gagtttctga ggcatcagtg cagccccgac g 351

<210> 3246

<211> 359

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-F6

<400> 3246

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tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc tcgcaagctc 120
ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta tgtgaaaacc 180
caattcttca accctacagg atccaacagg caatcgagc tggcatctta cctttatcac 240
ccttgttcct ccaacaatca tcagccctat tacaacagtt acctttgggtg catttattgg 300
cacataacat cagggcacaa caactacaac aacttgtgct agcaaaccct gctgcctac 359

<210> 3247

<211> 399

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-F8

<400> 3247

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cgctccggcg agctccttgc gtgccccgtc gcactccggc gggcgccctt ggctgtgtct 120
gtggtgtcgg tgcggatgag ggctaggggc gccgtggctg tgcgggcgga ggcaacggcc 180
gagggggtag ggaaagaggg gaagaaggcg gcgngaga agaagccggc gagcgggatc 240
accaagccga agcccatctc tacagagctg caggagtctg tcggcggcgc ggcggagctg 300
ccccggactg aggccatcaa gctggtatgg gcgcacatca agggcaacaa cctccaggat 360
ccaaacaaca ngaagataat aatctgcgat gagaaaactg 399

<210> 3248

<211> 349

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G1

<400> 3248

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atcagctaca tcttcaccga ggggtaggac gtgtcgcagg cggctctccg gctcaccctg 120
ctgtggcgt tcacgtcat cctcaacggc atccagctcc agcccgtcct ctctggggtc 180

gctgtgggggt gtggatggca ggcgttcgtc gcgtacgtca acgtcggctg ctactacatc 240
 gtcggcatcc cgctcgggtg cctcctaggc ttctactttg acctaggagc agcgggtatt 300
 tggagcggta tgatcggcgg caccttgatg cagaccttga tcttgatat 349

<210> 3249
 <211> 415
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G10

<400> 3249

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 gctgggggagc ggaccgtgtg atcgttggca gtgcgattgt gaagcaattg tgtgaggctg 180
 ctactcctga agaggggtctg gaaagggtcgg agggagtacgc caggagtatg aacgctgcta 240
 tgccgtgagc tgatctcact tcccgtcaca ggcaatgtga ttagaacatg gttttagcaa 300
 tattctgggc atgggtttgg cattcagaac tcactttagt gctgtactgg tcgatctccg 360
 gtggtgagaa cgaagtctgg ctttgcctat catagaaaaa ggttaaaactg agttg 415

<210> 3250
 <211> 412
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-013-Q1-K1-G11

<400> 3250

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 cgccttgccg cagttctaca cccggtgccg cgtggcgggc accgtcgact tcgtcttcgg 180
 caactccgcc gcggtgctcc acgacaccgt cctcgtcgtg ctgccgcggc agctgcggcc 240
 ggagaagggc gagaacgacg ccgtcacggc gcagggccgc accgaccggg cccagcccac 300
 ggggatcgtg ctcagccgct gtcctgtaa cggcagcgag gaggatcatg cgctgtaccg 360

cgagaggccc ggcgtgcacc acgtctacct gagccgnccg tggaaggagt ac 412

<210> 3251
<211> 393
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G12

<400> 3251

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ggctttctgc aagtctctgtt acggcaacca ttttcccaca aggttcacaa cctgcaatag 120
ctgcccttct tccacagtac ctgtcaccag cgggtgtcttg ggtatgtgaa aaccaattc 180
ttcaacccta tgcgatccaa caggcaatcg cagctggcat cttaccttta tcacccttgt 240
tcctgcaaca atcatcagcc ctattacagc agttaccttt ggtgcattta ttggcacaaa 300
acatcagggc acaacatcta caacaacttg tgctagcaaa ccttgctgcc tactctcagc 360
aacaacagtt tcttccattc aaccaactga cag 393

<210> 3252
<211> 223
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G2

<400> 3252

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ggacaacaac ctccacaact tgggctagca aaacttggtt gctactttta gaacaagcgg 120
ttctttcatt tcaaccacta actgcattgg actctgggtc ttaattgcaa caacaacaac 180
taccaattca gcagctacct gctgcctacc cccagcaatt tct 223

<210> 3253
<211> 385
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G3

<400> 3253

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attgaactct cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg 120
tgtgagccct gctaccttct tgatacaacc acagttgttg ccgttctacc agcacgctgc 180
gcctaacgct ggcacctctt tacaactgca acaattgctg ccattcaacc aacttgcttt 240
gacaaacca gcagcgcttct accaacaacc catcattggg ggtgccctct tttagatttc 300
ttatgagtta tagttcaata ataaagtttt ttgtctgatg tttgtggctt cccagaaata 360
agaaggtaca tttctagaat aaaaa 385

<210> 3254

<211> 354

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G4

<400> 3254

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ctaccattga tccagttaga tcgtgagAAC cctgctacct tctacatata tccacagtag 180
tacacgatct accatcacgg catgtatagc gctaggcaca ttattacaca tgaaccacta 240
gatgtcatgc tagcaaatcg ctctgactaa tctaaccatc atctaccaat aacatataat 300
caactagctg cattgaaaga tgcctcataa gtgatacatc aacaattacc attc 354

<210> 3255

<211> 335

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G5

<400> 3255

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ccccgacgca gaccacacga cgcgcacctc cgttcacgag gcggaagcat gagtcgccac 120
cogatcacta agtggggcaca gaggtccgac aggggtgttct tgacgataga gctgcccagc 180
gcccaggatg tgaagctgaa cttgaagcct gaaggccatt tcaacttctc agctaagggc 240

tcagatgact tgcgctatga gtttgacatt gagctgtttg atgctgtgaa tgtggaggag 300
agcaaagcag ctattgcccc aaggaccata tgcta 335

<210> 3256
<211> 407
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-G6

<400> 3256

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gggacgctat cgccaaggcc aatccagtgg tgaaggcgga gaagcttgac aagatctgag 120
gcggggggcat tgggtaacga aaaatggttg cgatctgcaa gaattcagca tgtctctttg 180
ctgctttatc attgaacttc ccattcttgt cttgctgtca cgtaccctgg ggttcaatac 240
tatgatgcgc acagcatcct ggcagctgca agaattcatc cccagtcgag tcacgaaaat 300
ggtttgctg ttgactatgt cgtgtaagct tattcagtta ttcttggtgg tttgggtcgg 360
tategtgtca tgtccccgtt acgtagctct gtaatctact attctca 407

<210> 3257
<211> 408
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-F1

<400> 3257

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caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aattatagct 180
tcagtatgtg aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc 240
aacatacctt tategccctt gttgtttcaa caatcaccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctgt gatcaacaa 360
gtagctctgg caaacctttc tccctactct tagcaacaac aatttctt 408

<210> 3258

<211> 149
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C6

 <400> 3258

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 caatccggca cgtctcatca ccaacaacgg ttcctaccat ctctgaacca tctatccatg 120
 aagaaccctg cctactactt acaaagaca 149

<210> 3259
 <211> 368
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C8

 <400> 3259

 acttaaacca ctctaagtga catacattac tcacggcctc acagcaatgt gtgccgcgat 60
 accatatatt tattgcgctc cttgcgctgc actgcgatcg catcaaatcg tccttcatta 120
 tctcacacag ctaactctat cgaaggctca ttattacact agacctttgc atcgaatcca 180
 ttcaatgggc atcttaacac ccatgtagca catcatataa gctacagcaa gcctttgccg 240
 ctagecgtcag actgcaacca atctagcagc tgaaccacaa tccttgcaac ctctaacaat 300
 ccacatcatc gtaacgcacg agctacacca atctgtacca gcaactgagcc acctagccat 360
 ggtcaacc 368

<210> 3260
 <211> 430
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C9

 <400> 3260

 caccagcgcg gcggcggcga ccatggctgt cggaagaac aagaggatct ccaagggaaa 60
 gaagggtggc aagagaaaga ccgtcgaccc tttctctaag aaggattggt atgacatcaa 120
 ggcaccgtcg gtgttcagtg tgcgcaacat cggaagact ctcgtatcca ggacacaggg 180

taccaggatt gcttctgagg gtctgaagca cagagtcctt gaggtttgcc tagctgatct 240
tcagggcgac gaggatcaag cttacaggaa aatcaggctc cgtgctgaag atgtgcaggg 300
caggaatgtg ctcacaaact tttgggggtat gaattttacc actgataaac tgagatccct 360
agtgaagaag tggcagacat taatcgaagc ccatgttgat gtcaagacaa cgcacaacta 420
catgttgcgt 430

<210> 3261
<211> 432
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-032-Q1-K1-D1

<400> 3261

cgcaaattgc accaagaaat ccatcgagag gccgtcgaca ggggaattaa tggcgtcgtc 60
gtctagcagc agccaccgcc gcctcatcct cgcagccgcc gtctgtctct ccgtgctcgc 120
ggctgccagc gccagcgcgc ggacctcctg cgtgccgggg tgggccatcc cgcacaaccc 180
gctcccgagc tgccgctggt acgtgaccag ccggacctgc ggcacccggc cgcgcctccc 240
gtggccggag ctgaagagga gatgctgccg ggagctggcg gacatcccg cgtactgccg 300
gtgcacggcg ctgagcatcc tcatggacgg cgcgatcccg ccgggcccg acgcgcagct 360
ggagggcccg ctagaggacc tgccgggctg cccgcgggag gtgcagaggg gattcggcgn 420
caccctcgtc ac 432

<210> 3262
<211> 417
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D10

<400> 3262

caacgccaaa catgcctga ctggccagtc tttcaaccgc tccttcagcg ggagcggggc 60
atccatggac attgtggtgt ccagtgtcag agcttacctg agcgccctga acaagatctg 120
cagtttcgct ggcgccgtga aagccagcag cgatgtagct gagaccgcaa gcgtcccgag 180
cacagaatga gctcccgttt gggttcagagt gacatgttgt tcaaaatttc tgctggaagg 240

atcgtccctt gagcttagga caggcaggaa gtcttgggac ctatgtagtg tacaatttct 300
 gtgtgtcata tacogtgtc gttgccagtt tgtactgtac catatataaa ccatagaatc 360
 tgttgccatt tagaagtctg gccaaaggta gctgtaatgc ttcacatgct tatagcc 417

<210> 3263
 <211> 352
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D11

<400> 3263

atgagcttat ctactaacat cgcataatac cggatcgaca ctatgaagat gagctctttg 60
 accttactga ctgactatgg atggcgagcgc acattcagca tacaacacgc tgctgtgctg 120
 acatccaccg cctacgttta tctaccgcac ggcgacgcat ccatcaccta cagcaacctg 180
 acaacttcgg ggtatcagcg accaccggtc cacctgtcgc cgacggtcca cctgacactg 240
 acgagccatg agccgtcgca ctgacataat ggcgtatact gatgcctgta gcttactcaa 300
 acgaacagga cttagtacca ttcagagaca tagctatggc ctagtctaca ga 352

<210> 3264
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D2

<400> 3264

ggagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat ttgctctct 60
 tatgtctctt gagctttgtg caagtgtgc tacggcgacc attttccac aatgtctaca 120
 agctctata gtttcccttc tcccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaaccaatt cttcaaccct ataggatcca acaggcaatc gcagctggca tcttaccttt 240
 atcacccttg ttcttccaac aatcatcagc cctattacag cagttacctt tgggtgattt 300
 attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
 ctactctcag caacaacagt ttcttccatt caaccaacta gcttcattga actctgcttc 420
 ttatttgcaa ccacaacaac ta 442

<210> 3265
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-D3

 <400> 3265

gaccaactag caacatagaa agcacaatag tgtaccaaca atggcagcca aaatatggtg 60
 cctgcttatg ctccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120
 ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttc aacctacag gatccaacag gcaatcacag ctggcatctt 240
 acctttatca cccttggttc tgcaacaatc atcagcccta ttacatcagt tacctttggt 300
 gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
 tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
 tgcttcttat ttgc 434

<210> 3266
 <211> 471
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-D4

 <400> 3266

gtccggattc ccggggtagt tgcaaacaccag ccacaacaac agctgcaaca gtttctgcc 60
 gcgctcagtc aactagccat ggtgaacgct gccgcctacc tacaacagca acaactgctt 120
 tcatctagcc cgctcgctgt ggccaatgca cctacatacc tgcaacaaca attgttgcaa 180
 cagattgtac cagctctgac tcagctagtt gtggcaaacc ctgctgccta cttgcaacag 240
 ctgcttccat tcaaccaact gactatgtcg aactctgctg cgtacctaca acagcgacaa 300
 cagttactta atccactagc agtggctaac ccattggctg ctgncttctt acagcagcaa 360
 caattgctgc catacaacca gttctctttg ataaacctg tcttgctgag gcagcaaccc 420
 atcgttggag gtgccatctt ttagattaca tatgagatgt actcgataat g 471

<210> 3267
<211> 367
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D5

<400> 3267

ggcagccaaa atattttgcc tcattatgct ccttggtctt tctgca^{*}agtg ctgctacggc 60
gagcattttc ccgcaatgct cacaagctcc tatagcttcc cttcttcccc catacctctc 120
accagcgatg tcttcagtat gtgaaaatcc aattcttcta ccctacagga tccaacaggc 180
aatcgcagca ggcattcttac ctttatcacc cttgttcttc caacaatcat cagccctatt 240
acagcagtta cctttggtgc atttattggc aaaaacatc agggcacaac aactacaaca 300
actcgtgcta gcaaaccctg ctgcctactc tcagcaacag cagttacctt tgggtgcattt 360
gttggca 367

<210> 3268
<211> 427
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D6

<400> 3268

agaaagcaca atagtgtacc aacaatggca gccaaaatat tttgcctcct taggctgctt 60
ggtctttctg caagtgtgc tacggcgacc attttccgc aatgctcgca agctcctata 120
gcttcccttc tcccccgta cctctcacca gcggtgtctt cggtatgtga aaaccaatt 180
cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt atcacccttg 240
ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcattt attggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc ttatttgcaa 420
caaccac 427

<210> 3269
<211> 415
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D8

<400> 3269

tgacaatcca acaacaacga agaatgttga agggttccaa gttgacaatc ctttttagaga 60
tatgcatgaa atgatgccat ctcatctgga ttttgaggaa cagaagactg aagagggtag 120
ggctgttggg ccagtcatgg atgcttcctt taaagacaat gattttgaat acttgcagat 180
tataaagaat gaagaccttg aagagcttag agaacttggg tcaggcacat ttggaactgt 240
ataccatgga aaatggaggg gcagtgatgt agccattaag agaataaaga aaagttgctt 300
cacaggacgg tcttcagagc tagaaagact agcacacgaa ttctggcgag aagctgaaat 360
tctttcaaag cttcatcatc caaatgttgt ggcattttat ggtgttgtga aagat 415

<210> 3270

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-D9

<400> 3270

cagaccatta gctttatcta ctccagagcg cagaagaacc cgatcgacac catgaggggtg 60
ttgctcgttg cccgcgctct cctggctctc gctgcgagcg ccacctccac gcatacaagc 120
ggcggtgcg gctgccagcc accgccgccg gttcatctac cgccgccggt gcatctgccca 180
cctccgggtc acctgccacc tccggtgcat ctcccacgc cgggccacct gccgccgccg 240
gtccacctgc caccgccggt ccatgtgccg ccgccgggtc atctgccgcc gccaccatgc 300
cactacccta ctcaaccgcc cgggctcag cctcatcccc agccacaccc atgcccgtgc 360
caacagccgc atccaagccc gtgccagctg cagggaacct gcggcgtttg ca 412

<210> 3271

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-E1

<400> 3271

cattgaactc tgctgcttat ttgcaacaac aattaccatt cagccagcta gttgctggct 60
 acccccagca atttcttcca ttcaaccaac tagcagcatt gaactctgct gcttatttac 120
 agcagcaaca actactacca ttccagccagc tagctgatgt gagccctgct gccttcttga 180
 cacaacaaca gttgttgccg ttctacctgc acgctatgcc taacgctggc accctcttac 240
 aactgcaaca attgctgcc a ttcaaccaac ttgctttgac aaactcaaca gtgttctacc 300
 aacaacccat cattggtggt gccctctttt agattgctta tgagttatag ttcaataatg 360
 aaattttttg gatgatgttt gtggcgctcc agaaataaga aagtacattt ctagatt 417

<210> 3272

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-C5

<400> 3272

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 tcgatccaag caagcgtagt cccttggtcc tagtataacc tctaaatgat tccatgggaa 120
 ctccaaacga aatgatggca tactcttccc tgtccaaaat ggacaccagc cagaaccacg 180
 gagctgctct gtccaatgta gttgctggaa acaactatcc tgttcaggat tatctttatg 240
 agcaagcatc cgaaccagac ttcccagagt atgattcaag ggatgacctg ttcgctccaa 300
 cacgagctag tccaaaagtc aatctaaata ctgttctagg tggctctggt tcgattgtta 360
 cagggtgtaaa caagagttag gatgatgcat cgcagcatga aagttttagc acagacatat 420
 cat 423

<210> 3273

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B2

<400> 3273

ggtggccaga ggcgcactgc tgggcgatgg ggtggacttg gcggcaacct tcgaacgatc 60
 gatcttggcg acgccgaggt tgtcaggag gtctcaggaa catacggcat gtttgaaggc 120

gccaccacgc tgacctcgat cagaattctc accagcagca gaacctgggg gccatggggg 180
atcgaggacg ggacacgttt ctgcatcacc gcgccgatcg gcagcagcat cgtgggggttc 240
tatggacgct cgaccagcag gctcgtcgct gcgatcggtg tttacctgcg tcaacaactc 300
tgatctggtc atctagctat catcgtcgtc cggtgctgtc gtatgtgtgt tcatgtcaaa 360
taaataaaaag tggctcttgtg tctaa 385

<210> 3274

<211> 408

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B3

<400> 3274

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ggcgggcttg cctggggccac cagcaacgag tcgctggaga atgccttcgc ctctacggc 120
gagatcctcg actccaaggt catcaccgac cgggagacgg ggaggtctcg cggcttcggc 180
ttcgttacct tctcctccga gaactccatg ctcgacgcta tcgagaacat gaacggcaag 240
gagctcgacg gccgtaacat caccgttaac caggcccagt cccgtggcgg tggcgggtggc 300
tgcgggtggct acggcggctg tcgcggcggc ggcggctatg gtggcaggcg ccgtgacagc 360
ggttatggcg gcgggtggcg ctacggcggg cggcgcgagg gtgggtggc 408

<210> 3275

<211> 402

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-032-Q1-K1-B4

<400> 3275

agtaaagaaa tgaggggttg tgacttgtat attgtcaagg atcacttgga tgtggtgaat 60
gctatactgg aactgatga tagctgcata aggattgtgc gaaaaaacgg gaagacatcc 120
ctacatactg ctgcaaggat tggataccat cgtattgtca aggcactcat agagagggat 180
ccaggaattg ttccgatcaa ggataggaag ggacaaactg cacttcacat ggctgtgaaa 240
ggcaagaaca cagatgtagt ggaagagtta ctgatggctg atgtttccat tctcaatgtg 300

cgggacaaga agggaaatac tgctttgcac atagctacat ggaaatggga gaatttggga 360
 ttatgaaaca ccggagacgt ggcttcgacg aaacggangc gt 402

<210> 3276
 <211> 427
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-B5

<400> 3276

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 gcagggcaag tacttcttcc acgagcagat ttcaaggcat cgcaccatca tgaacatctt 120
 tgacaaaacc ccacatgttc atagggatgc atttgttgct ccaagtgcac cccttattgg 180
 tgatgttcaa gtcgggcaag gagcttccat ttggtatggg tgcgtcttaa gaggggacgc 240
 aaacaacata caaattggat ctgggaccaa tatacaagac aattctcttg tgcattgtggc 300
 taaatctaata ctaagtggga aagtctttcc aacaatcatt ggcaataatg tcacaatagg 360
 tcacagtgcg gtgttacaag gatgcacggg tgaagatgaa gctnttggtg gcatgggggc 420
 cacccta 427

<210> 3277
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B6

<400> 3277

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 cttccttatg ctcttgggtc tttctgcaag tgctgtacc gcaaccattt tcccacaatg 120
 ctcacaagct cctatagctt ctttcttcc ccatacctc tcaccagcgg tgtcttcagt 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt 240
 acctttatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
 gcatttgttg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct 360

tgctgcttac tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc 420
tgctgctta 429

<210> 3278

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B7

<400> 3278

gagcattcag aaacacacct agcgaatcgc actagcaacg acctaacaac aatggcttcc 60
aagacattat cctccttgc gcttcttgc ctttttgtga gtgcaacaaa tgcgttcatt 120
attccacaat gctcacttgc tccgagtgc attattccac agttcctccc tccagttact 180
tcaatgggct tcgaacaccc agctgtgcaa gcctataggc tacaacaagc gcttgcggcg 240
agcgtcttag aacaaccaat tgcccaatta caacaacaat ccttagcaca tctaaccata 300
caaaccatcg caacgcagca gcaacaagca ctgagccacc tagccgtggg gaaccctatc 360
gcctacttgc aacaacagct gcttgcattc aaccacttg ctttggcaaa cgtagctgca 420
taccaacaac aa 432

<210> 3279

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B9

<400> 3279

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atgctcggtt tctttctgca agtgctgcta ccgcaaccat tttcccacaa tgctcacaag 120
ctcctatage ttcttttctt ccccatacc tctcaccagc ggtgtcttca gtatgtgaaa 180
accaattct tcaaccctac aggatccaac aggcaatcgc agcaggcatc ttacctttat 240
caccttggt cctccaacaa ccgtcagccc tattacagca gttacctttg gtgcatttgt 300
tggcacacaa catcatggcg caacaactac aacaacttct gctactaaaa cccgttgctt 360
actactatca acaaca 376

<210> 3280
 <211> 395
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C1

 <400> 3280

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 tccttatgct ccttggctctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcggtg tcttcggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgcagct ggcatcttac 240
 ctttatcacc cttgttcctc caacaatcat cagccctatt acaacagtta cttttgggtgc 300
 atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 360
 ctgcctactc tcagcaacag cagttttcttc cattc 395

<210> 3281
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-C10

 <400> 3281

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 cggttctgtg ggcggcgctc ctgctgctgc tggcgacgtc gtgcgcgcgc gcaggtggcg 120
 cgtacgcggg gccgggggtg cggaagcacg tggcgagggt cacggagtag ggcgcggctc 180
 gggacgggag gacgtctaac acggcggcgt tcgccagggc tgtggcggac ctggcgcggc 240
 gcgcgccccg cggcggcgct gcgctggtgg tgccgcggg gaagtggctc acggggccct 300
 tcaacctcac cagctgcttc acgctctacc tcgacgaggg cgccgagatc ctgcgctncc 360
 aggacatgaa gcattggccc ctcatagctc ccctgccgtc ctacgggaga ggaagggacg 420
 agcct 425

<210> 3282
 <211> 373

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C12

 <400> 3282

 gagagcgcca tacatgatca accttacagc accaatggcc actaatagat tgtacgggct 60
 tatgattctt gatgaagctg aatgtgccga taacgcaacc attgatcttc aatactgaca 120
 acgtgggtatt ggtgctcttc ttggcccata tcttccatca ccgaccgcta caggctcgaga 180
 taaacgacgc ctacaaccgt acagggtcca acaagtactc ggaacacgac acttacgtgt 240
 actaccgctg atgttacaac aatcggcagc acctatcact ggcacactaa ttggtacaga 300
 ccatgagacc acaacagctg gcaacgactga cgctacctgc tatcagccga ctgacactgt 360
 caaacttatc tac 373

<210> 3283
 <211> 394
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-C2

 <400> 3283

 caacaaccaa ttgcccaatt gcaacaacaa tcttgccac atctaacaat acaagccgtc 60
 aggacgcaac agcaacaaca gttcctacca gcactgagcc acctagccat ggtgaaccct 120
 gccgcctact tgcaagagca gctgcttgca tccaaccac ttgctctggc gaacgtagtt 180
 gcaaaccagc aacaacaaca gctacaacag tttctgccaa cgctcagtca actagccatg 240
 gtgaaccctg ccgcctacgt acaacaacaa caactgcttt catctagccc gctcgctgtg 300
 ggcaatgcac ctacatacct gcaacaacaa ttgttgcaac agattgtacc agctetgact 360
 caactagctg tggcaaaacc tgttgcttac ttgc 394

<210> 3284
 <211> 438
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-C3

<400> 3284

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ttcgaacacc tagctgtgca agccaacatg caacaacaag cgcttgccgc gagcgtctta 120
caacaaccaa ttgcccatt gcaacaacaa tccttgccac atctaacaat acaagccatc 180
acaacgcaac agcaacaaca gttcctacca gcactgagcc acctagccat ggtgaaccct 240
gccgcctact tgcaagagca gctgcttgca tccaaccac ttgctctggc gaacgtagtt 300
gcaaaccagc aacaacaaca gctacaacag tttctgcca cgctcagtca actagccatg 360
gtgaaccctg ccgctacgt acaacaacaa caactgcttt catctagccc gctcgctggg 420
ggcaatgcac ctacatac 438

<210> 3285

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-C4

<400> 3285

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ttgttcctcc aacaatcatc agccctatta catcagttac ctttggtgca ttattggca 120
caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc tgcctactct 180
cagcaacagc agtttcttcc attcaaccaa ctaactgcat tgaactctgc ttcttatttg 240
caacaacaac aactaccatt cagccagcta cctgctgctt acccccagca atttcttcca 300
ttcaaccaac tggcagcatt gaactctcct gcttatttac agcagcaaca actactacca 360
ttcagccagc tagctggtgt gagccctgct accttcttga tacaaccaca gttggtgccg 420
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<210> 3286

<211> 389

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-032-Q1-K1-B12

<400> 3286

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 gacgatctta taaaaaaaga cttcacaaag gtgggctcag ctgaggaact cccacaagcg 180
 agttactctt ctgctgngat gctggaagat gttaataatg taatggctct aactcgtgat 240
 tgcgagaaga ctaaagttgc tggatttaca aaattggatg aagaagtgat aaagttgata 300
 gaaatagaaa agcctattct gaacgaagct atcactatta tccgcaaggc agcaccaatg 360
 gtgatcatct tacgttacac atttgatgg 389

<210> 3287

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H8

<400> 3287

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 ctctgctgct tatttacagc agcaacaact actaccattc agccagctag ctgatgtgag 180
 ccctgctgcc ttcttgacac aacaacagtt gttgccgttc tacctgcacg ctatgcctaa 240
 cgctggcacc ctcttacaac tgcaacaatt gctgccattc aaccaacttg ctttgacaaa 300
 ctcaacagtg ttctaccaac aacccatcat tgggtggtgcc ctctttttaga ttgcttatga 360
 gttatagttc aataatgaag ttttttggat g 391

<210> 3288

<211> 141

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H9

<400> 3288

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 aataagaaag tacatttcta g 141

<210> 3289
 <211> 426
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-032-Q1-K1-A1

 <400> 3289

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gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgcagca 120
agcaacatac ctttatcacc cttgtttcaa caatcgccag ccctatcttt ggtgcagtca 180
ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 240
gtagctctgg caaaccttcc tccctactat cagcaacaac aatttcttcc attcaaccaa 300
ctatctacac tgaacctgc tgcttatttg cagcaacaac tattaccatt cagccagcta 360
gctactgcct actctcatca acaacaactt cttccattta accaattggc cgcactgaac 420
ctcgct 426
  
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<210> 3290
 <211> 434
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-032-Q1-K1-A10

 <400> 3290

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ccacgcttag agaaccacag cacagttgga cctggaaagc tggaagagaa tacccaaggg 180
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tatgatggcc caagcaactt tgcaacaac ctcatgggcc accgtatgta ctacggtttc 300
cggaccacaa tcacgccgaa cagaaaggct cttgccccga tactcatcga caggatggaa 360
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ccccacaagc gcgt 434
  
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<210> 3291
<211> 406
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A11

<400> 3291

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cttcaatggg cttcgaacac ctagctgtgc aagccaacat gcaacaacaa gcgcttgagg 180
cgagcgtctt acaacaacca attgcccatt tgcaacaaca atccttgcca catctaacaa 240
tacaagccat cacaacgcaa cagcaacaac agttcctacc agcactgagc cacctagcca 300
tggtgaaccc tgccgcctac ttgcaagagc agctgcttgc atccaacca cttgctctgg 360
cgaacgtagt tgcaaaccag caacaaccac agctacaaac agttct 406

<210> 3292
<211> 218
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A2

<400> 3292

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ctgtgctgag tgccgctcgt gtacatgatg ttgctgagcg cgacattctg atcctgaatg 120
ctcacatgct cctatagccg ctcttctttg cgcacacgta ccagctaacg tagctgcagt 180
ctgtgaagac acgcgtcatc aactcatatg cgcgcctaa 218

<210> 3293
<211> 406
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A3

<400> 3293

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atactttccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120
cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgtttcaa caatcgccag ccctatcttt ggtgcagtca 300
ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaacctttc tccctactat cagcaacaac aatttc 406

<210> 3294

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A4

<400> 3294

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caactgactg tgtcgaactc tgctgcgtac ctacaacagc gacaacagtt acttaatcca 120
ctagcagtgc ctaaccatt ggctactgcc ttctacagc agcaacaatt gctaccatac 180
agccagttct ctttgatgaa ccctgccttg tctgtggcagc aaccatcgt tggagggtgcc 240
atcttttaga ttacatatga gatgtaatcg ataatgggtgc cctcataccg gcatgtgttt 300
cctagaaata atcaatatat tgattgacat ttatctcg 338

<210> 3295

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A5

<400> 3295

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aagctectat agcttccctt cttcccccat acctctcacc agcgggtgtct tcaatgtgtg 180
aaacccaat tgttcaacc tacaggatcc aacaggcaat cgcaacaggc atcttaccat 240
tatcaccctt gttctccaa caaccgtcag ccctattaca gcagttacct ttgggtccatt 300

tgggtggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca aaccttgctg 360
 catactctca gcaacatcag tttcttccat tcaaccaact ggctgcattg aactctgctg 420
 cttatattca acaacaatta ccattc 446

<210> 3296
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A6

<400> 3296

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 ccccgaatct tagtgtcccc ttgtttcatc ttgttgatgt ggtctttcag ctccaagatg 180
 gaggctggat aaggcgtcaa gcattttggg tagcaaagca aatactgcaa ttgggaatgg 240
 gagacacgtt tgatgactgg cttgttgaca aaatccaatt acttaggaaa gggaggataa 300
 ttgcttttgc tgtaagcgc attgaacaaa ttctctggcc tgatggaatt ttcattgacaa 360
 aacatccaaa gagaaattcg gcttcaactt ctcttgggtgc tcagagcaat ggcattg 416

<210> 3297
 <211> 380
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A7

<400> 3297

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 tcctatagct tcccttcttc ccccgtaact ctaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc 380

<210> 3298
<211> 420
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A8

<400> 3298

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ctccttgctc tttctgcatg tggttgctaac gcgacaattt tccttcaatg ctcacaagct 120
cctatagctt cccttcttcc ccatacctt ccatcaatga tagcttcagt atgtgaaaac 180
ccagctcttc aaccctatag gctocaacaa gcaatcgag caagcaacat acctttatca 240
cccttgtttc aacaatcgcc agccctatct ttggtgcagt cattggtaca aaccatcaag 300
gcacagcagc tgcagcaact cgtgctacct gtgatcaacc aagtagctct ggcaaaccct 360
tctccctact atcagcaaca acaatttctt ccattcaacc aactatctac acttaaccct 420

<210> 3299
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-A9

<400> 3299

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agatctgtgg ctctgaagaa agggctgccc attcttggtg ttttcaggag ctttgcggt 180
gttgaggagg atccagctgt tatgggtgtt ggtcctgctg tggccattcc tgctgctgtg 240
aagtctgcag gccttgagat tggcgacatt gatctgtttg aactgaatga ggccttcgcc 300
tctcagtttg tctattgctg caacaagttg gggctggacc gttctaaagt aaatgtaa 360
ggaagcgaga ttgcccttgg acacctctg ggtgcaacag gtgccccgtg tgtggctact 420
tct 423

<210> 3300
<211> 423
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B1

<400> 3300

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gggtccttat gtccttgggt cttttctgcaa gtgctgctac cgcaaccatt ttcccacaat 120

gctcacaagc tcctatagct tcctttcttc ccccatacct ctcaccagcg gtgtcttcag 180

tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct 240

tacctttatc acccttgttc ctccaacaac cgtcagccct attacagcag ttacctttgg 300

tgcatctgtt ggcacaaaac atcaaggcac aacaactaca acaacttgtg ctaggaaacc 360

ttgctgcta ctctcagcaa cagcagtttc ttccattcaa ccaactggct gcattgaact 420

ctg 423

<210> 3301

<211> 371

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-032-Q1-K1-B10

<400> 3301

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gcaagtgtg ctacggcgac cttttccca caatgctcac aagctcctat agcttccctt 120

cttccccctg acctctcacc agcgggtgtc tcggtatgtg aaaacccaat tcttcaacc 180

tataggatcc aacaggcaat cgcagctggc atcttacctt tatcaccctt gctcctccaa 240

caatcatcag ccctattaca gcagttacct ttggtgcatt tattggcaca naacatcagg 300

gcacaacaac tacaacaact tgtgctagca aaccttgctg cctactctca gcaacaacag 360

tttcttccat t 371

<210> 3302

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-032-Q1-K1-B11

<400> 3302

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acaagctcct atagcttcct ttcttcccc atacctctca ccagcgggtgt cttcagtatg 180
tgaaaacca attcttcaac cctacaggat ccaacaggca atcgcagcag gcattctacc 240
tttatcacc ttgttcctcc aacaaccgtc agccctatta cagcagttac ctttgggtgca 300
tttgttggca caaaacatca aggcacaaca actacaacaa cttgtgctaa gaaaccttgc 360
tgccactct cagcaacagc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
t 421

<210> 3303

<211> 442

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-H7

<400> 3303

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gtcgggtggcg ctggaggagg tgtgcgcgcg cctcgcgcgc gggatccccg tcgtggacct 180
atggccagcg ctccgtggca cgctcgatgc gacggggctc ccgctaggcc cagcagtaa 240
gcgcgccttg tgggctcgca tccttgcgct ccgcgtcgtc aacctggtgg agggggatgg 300
ggacggngtg cccatctctt gccgagacc ggcgagagaag gacttcgagg aggccgaacg 360
gcggtgcatg cggctcgtgg caagcgcggn gatcaggggac aacttcctgg gggtatacga 420
gcgcagattc gcgaagtcgg ag 442

<210> 3304

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D2

<400> 3304

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tgggggtgggc cttggttggtg gaggatccca aacctcctaa actacgcatg gccaaactcc 120
agaagcggca tgactgttca gcgagaacaa gcgggagtag aaccgctcag gacgggagat 180
cgtggagcag agctggacag ccgactagtg cataacgatg ctctcgtgc ccgatctggg 240
cacaatatga aagcgtgaaa tgaagacctc accactcct tgagtttctg ggtcgccagg 300
cttgtcgaag cattgaagaa ccacagtgat tgcattgtag tctgacggca ccaatgtgac 360
cccattgaga gcacccgctg ctcatgggag cagctggcga aatggaacgg gtg 413

<210> 3305

<211> 359

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-D3

<400> 3305

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caccctcagc catggcgcca gcggcgggcg aggctgggtcc cggcgatgac gggcttagga 120
agctcgaata cttttccctg gtctccaaag tttgtccga gctcgagacc cacatcggcg 180
tcggcgacaa ggtgctggcc gagttcatca ccgagctcgg ccgcgactcc acaaccgtcc 240
ccgagttcga cgccaagctc aaggagaagg gcgccgactt ccccgactac ttcgtccata 300
caaacttgat gttgtctccg ctggggaaaa acttcacaaa gataaggaaa gctatcact 359

<210> 3306

<211> 392

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-D4

<400> 3306

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ccaccctcag ccatggcgcc agcggcgggc gaggtggtc ccggcgatga cgggcttagg 120

aagctcgaat acctttccct ggtctccaaa gtttgctccg agctcgagac ccacatcggc 180
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 cccgagttcg acgccaagct caaggagaag ggcgccgact tccccgacta cttcgtccat 300
 acaaacttga tgttgctctc gctgggaaaa acttcacaaa gataaggaaa gctatcactg 360
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<210> 3307

<211> 300

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D5

<400> 3307

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 gtggctgcca gacaccaccg tatcatctac cgcttgcgtt ctatatgccg cctccgttct 180
 atctgccgcc gcagcagcag ccgcagccat ggcaataccc cactcaacca ccgcagctaa 240
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<210> 3308

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D8

<400> 3308

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 gcttcagtat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240
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 tcattgggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tgtgatcaac 360
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<210> 3309
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D9

<400> 3309

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<210> 3310
 <211> 348
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-E1

<400> 3310

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acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag ttacttcaat 180
gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg cggcgagcgt 240
cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa caatacaagc 300
catcacaacg caacagcaac aacagttcct accagcactg agccacct 348
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<210> 3311
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-E10

<400> 3311

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gtacaatcat cagtcacaac tcggggccaat caaaagcttg ctttttggtt cttcggcccc 120
tacaaaattt tacagcgcac cgggccagtt gcttacaagc ttcagttgcc cgcttcctct 180
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cgtcgattaa tccggcgtgg cggttctatg gtgactcaag tcaaagttgc atggtctgga 360
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<210> 3312

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-E11

<400> 3312

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ttgccaccag tcatgccatt ggggtaccatg aacccatgca tgcagtactg catgatgcaa 180
caggggcttg ccagcttgat ggcgtgtccg tccctgatgc tgcagcaact gttggcctta 240
ccgcttcaga cgatgccagt gatgatgcca cagatgatga cgcctaacat gatgtcacca 300
ttgatgatgc cgagcatgat gtcaccaatg gtcttgccga gcatgatgac gcaaagtatg 360
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<210> 3313

<211> 226

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-E2

<400> 3313

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atcacaaact ggcaactcta aaggatatgc cttatgggtg taccaagatc ttaatgttac 180
cgacattgcc agcgctgcta ttaatggcat gcctatggga gacaag 226

<210> 3314

<211> 321

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-E3

<400> 3314

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gacctgtact agggctaggg ctttccaatt tggcgaggga caaaaaatgc tctcgagtgg 120
tgtgttgtca agcaaagctc ctccatctgc gccctacccc gttgtgcaa ctgtttggca 180
tcaaacttgt gtggttgcta tcttctatgt tctgctagtt aatgttcgga gtccgtggga 240
atatactagc taattaataa aaggaaaaac tgatgtgatg ccataatagt ataatgtcat 300
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<210> 3315

<211> 411

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-E4

<400> 3315

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ccctcgctct gctggctctc gctgagagcg ccacctccac gcatacaagc ggcggctgcg 120
gctgccagcc accgcccgcg gttcatctac cgccgcccgt gcacttgcca cctccggttc 180
acctgccacc tccggtgcat ctcccaccgc cgggtccacct gccgcccgcg gtccacctgc 240
cacgncgggt ccatgtgccg ncgncgggtc atctgccgnc gncacctatgc cactacccta 300
ctcaaccgcc ccggcctcag cctcatcccc agccacaccc atgcccgtgc caacagccgc 360
atccaagccc gtgccagctg cagggaacct gncgcgttgg cagcaccccc g 411

<210> 3316

<211> 304

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-013-Q1-K1-E6

 <400> 3316

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 catcgccatt accacctacc ttcacctcca ctctgtacatc accacccatc cactcctcac 180
 cggacacctg caccgacgtc catgtcccgcc agccgcttca tctgcccgtc ccaccatgcc 240
 actaccctac tcaaccgccc acaactcagc ctcatgccc tccacacca taccgcgccc 300
 aaca 304

<210> 3317
 <211> 285
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-013-Q1-K1-E7

 <400> 3317

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 attgaactct gcttcttatt tgcacaacaa ctacaacaac ttgtgctagc aaaccttgct 120
 gcatactctc agcaacatca gtttcttcca ttcaaccaac tggctgcatt gaactctgct 180
 gcttatttgc aacaacaatt accattcaac cagctagttg ctggctaccc ccaacaattt 240
 cttccattca accaactagc agcattgaac tctggtgctt attta 285

<210> 3318
 <211> 415
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-013-Q1-K1-E8

 <400> 3318

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 aagcaattct gtttctgaga aagccactga ggcatttgag gaccctgggc ttgttgggat 120

gcctcaaatt gttggtacca ctgctttatc taatacacga acttaggctg gaggctttac 180
tatgggccaa gttgttcaag aagcataacc tttgttttct ggtgcatatg aagggctttg 240
tttgtgctcg tcaagactac tttatctcat atgggagttt cctattatag tgattcgaag 300
accggctggt actaataaat gcaaggatgg tgtaaactgt ttgtaggctt tcagctgnng 360
ccatgaaaat tcttgagagc aagattcatt cactggaaac attntttaga tctag 415

<210> 3319

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D12

<400> 3319

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ggccgcaaga agacggctgt ggccgtcgcc tacaccaagc cggggcgcg gctgatcaag 120
gtgaacggcg tcccgattga gctcatcagg ccggagatgc tccgcctcaa ggccttcgag 180
cccatcctgc tggcggggcg ctccagggtc aaggacatcg acatgaggat ccggtccga 240
ggcgggcgga agacgtcgca gatctacgcc atccgccagg ccgtcgccaa ggggctcgtc 300
gcctactacc agaagtacgt cgacgaggcc gccagaagg aggtcaagga catcttcacc 360
cgggtacgacc gcacccttct cgtcgccgac ccaggcgct gcgagccgaa ggagttcg 418

<210> 3320

<211> 336

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B8

<400> 3320

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caagcgtgcg gttgtggctg ccacacacca ccgtcccatc taccgtctgc gcactatatg 120
ccgccatccg gtctatctgt cgccgaggca ccatcacgca ccatggcaat accccactca 180
accaccgcag ctaagcccggt gccgatagtt cagatcctgc ggtgtagcaa gcagaccgca 240
gccacgatcc tggggcagag cgtccaggtc ctgaggcaca acagcaaccc tagctgcgac 300

gccctacggc tcgccacaaa gccagggcgc tgcagc

336

<210> 3321

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B9

<400> 3321

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gcgggggtgt agggggagggc ggagttgggg caggtgtcat ggtgggcggc ggagtcgggc 120

cgggcgggcg cgttggcggc gacgtggagc tcgtcagcaa gacgctgcag ttcgagcaca 180

agctgttcta cttcgatctg aaggagaacc cgcgggggag gtacctcaag atctccgaga 240

agacctcggc cacgcgctcc accatcatcg tccccgtcga cggcgtggcc tggttcctcg 300

acctcttcga ctactacatc cgcaccgacg agcgcgacgc cttcagcaag gagctgcgac 360

tccagaccaa ggggtgtctat ttcgatatcg gggagaac 398

<210> 3322

<211> 145

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C1

<400> 3322

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tagtagagag gctagtaggt ggtcctcgaa cgaagatgtt ggcggtgttc agcggccagg 120

tggtggaggt gccggcgga ctggt 145

<210> 3323

<211> 402

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C10

<400> 3323

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ctatatatgt tgcctaggta tgctcattga actttctgca agtgctgcta ctgcgaccat 120
 tttcctccaa cgctcgcaag ctctataaac tctcattaat gcccgtacc tctcaccaac 180
 actagtctta aatctgtgaa aaccacttc ttgaaccata catgatccat cacgcacacg 240
 cagacagcat ttacttttta ccacccttat tcatacaaca atcatctgcc ctattacaac 300
 aaccacttct atatcattta ttggaacaat acatcaaggc tcaacatcta caacgactcc 360
 tgcttgcaaa acgtgctgac gactctcatc aacagctatc ac 402

<210> 3324

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C11

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 tccacaatgc tcacaacaat acctctctcc ggtgacagcc gcgagatttg aatacccaac 180
 tatacaatcc tacaggctac aagaggccat cgcagcaagc atcttacggg cgttagcatt 240
 gaccgtccaa caaccatag cctattgca acaaccatcc ttaatgaatc tatatctcca 300
 aagaatcgca gcacaacaac tacaacaaca gttgcttcca acaatcaatc aagtagttgc 360
 agcgaacctt gctgcttacc tccagcatca actatttctt ccattcaatc aactagct 418

<210> 3325

<211> 420

<212> DNA

<213> Zea mays

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<400> 3325

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 gcaacaaatg cgttcattat tccacaatgc tcaattgctc caagttccat tattacacag 180
 tttctgccac cagttacttc aatgggcttc gaacaccag ctgtgcaagc ctataggcta 240

caacaagcaa ttgcggcgag cgtcttataa caaccaattt tgcagttgca acaacaatgc 300
 ttggcacatc taacaatata aaccatcgca acgcaacagc aactacaatt cctaccagca 360
 ctgagccacc tagccatggt gaaccctgcc gactacttgc aacagcagtt gcttgcata 420

<210> 3326

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C2

<400> 3326

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 agaagacaaa cgatatgcgg tgacaccagc ccaatcattg tacgggactg gctatgataa 180
 ttatacaagt gaaccgaaca gtccgggaga ttccaggctc agggctgaaa aaacacaaga 240
 acctgttatt gacatattgc ctcagctcta tgatattggt tccagtgcga gcagaggacc 300
 ttcaactgga atgtggcttc gaactcttcg actaaagatt accgggaaga gatgggattc 360
 cagaaaatga tgccaggata actgctgggt tcttagaagg gatgacaaga 410

<210> 3327

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C3

<400> 3327

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 gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgaat gctcgcaagc 120
 tcctatagct tcccttcttc ccccgctac ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc t 381

<210> 3328
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C4

<400> 3328

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 aggctgatag attttgacaa caaacgtgct tacttttcggt cacgtatcag acagcagcat 180
 gatcagcacc ttccagctcc tctacacatt agtggttcgca gggcttatgt tttggatgac 240
 tcatataatc agttgagatt acgtcgtacc caggatctca aaggctggtt gactgtgcaa 300
 tttcaagggg aagagggcat agatgcagga ggactaacta gggagtggta tcaactgctc 360
 tctagagtta tttttgacaa aggaactctt cttttcacta caggtggaaa caatgc 416

<210> 3329
 <211> 387
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C5

<400> 3329

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 cttgctcttt ctgcatgtgt tgctaacgag accatttttc ctcaatactc acaagctcct 120
 atagctgccc ttcttcccc ataccttcca tcaatgaccg ctttagtatg tgaaaaccca 180
 gcccttcaac cctacaggat ccagcaagca atcgcaacaa gcaacttacc tttatcacac 240
 ctgtttctttc aacaatcgcc agccctatct ttggtgcagt cattggtaca aaccatcaag 300
 gcagaacagt tgcagcaact cgtgctacca gtgatcagcc cagtagctct ggcaaaactt 360
 tccccctact ttagcaacaa caatttc 387

<210> 3330
 <211> 360
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C6

<400> 3330

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
acattattcc acaatgctca cttgctccta gtgccattat tccacagttg ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaaca caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagtttct accagcactg agccacctag 360

<210> 3331

<211> 349

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C7

<400> 3331

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tccttatgct ccttggctct tctgcaagtg ctgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc tttcttcccc catacctctc accagcgggtg tcttcagtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagca ggcattctac 240
ctttatcacc cttgttctc caacaaccgt cagccctatt acagcagtta cctttgggtgc 300
atTTgttggc acaaaacatc aaggcacaac aactacaaca acttgtgct 349

<210> 3332

<211> 350

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C8

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tggcagcttt ctcaagtgaat cagtatcacc gcataacctt ttccggacacc cggatgttga 120
gaaatgccca ttcttgagga atatcaatgg agctacaacc ttttccctcg cttctgcttt 180

gccagtagct gctcaaggag gcaaggggcc aatttttgag gaagggtcag gctttgagtc 240
 tgcatccaag cttttccatg gccgagatgg aatagttccc ctttcagaaa gatcatatgt 300
 atctgatgaa caccacattg agagcattga tgtcaggact gaacctgctc 350

<210> 3333

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-C9

<400> 3333

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 ctcttatagc tctccttctt cccccgtacc tctcaccagc ggagtcttcg gtatgtgaaa 180
 acccaattct tcaaccctac aggatccaac aggcactcgc agctggcatc ttacctttat 240
 cacccttggt cctacaacaa tcatcagccc tattacaaca gctacctttg gtgcatttat 300
 tggcacaata catcagggca caacatctac aacaacttgt gctagcaaac cttgctgact 360
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<210> 3334

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D1

<400> 3334

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 tcctctgtgc ttggcacccc ctgctcacca tcgctctcat cggctggcctt gcaagggaca 180
 tccacaagct ctacgaaccc agggaaggag agactgccca cgtcattaag ggtgtcaatg 240
 ttgacatcac catcacatgg atattcatgg gcattatcgt tctgaaggag ctgtggaaga 300
 tggtcaccta catcttgctg gactggacca aggtgatgct gctgtgcgag tacacttcgc 360
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<210> 3335

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-D11

<400> 3335

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ttaatctcaa tggaagccaa gtttttccgt ttactgaagc tcgttggtgt cggcttcaaa 180
gcgaggtcag agagccaagg ccgcgagttg ttccttaaac tgggcttcag ccatgaggtg 240
cagctcaccg atcctgcagc tgtccatgtg ttctgcttca aaccaacat aatctgctgc 300
accggcatcg ataatgacag ggtgcaccat ttcggcgctg ccatccggag ctacaaggct 360
gcagaggtgt acaaggagaa ggcgatcctg tacattgact aggttatcaa gctga 415

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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B7

<400> 3336

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gtactcgggt ctgtctgcaa gtgctgctac ggcgaccatt ttaccgcaat gctcgcaagc 120
tactatagct tcccttcttc ccccgtagct ctaccagcg gtgtcttcgg tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
accctagttc ctccaacaat catcagccct attacaacag ttacctttgg tgcatttatt 300
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<210> 3337

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A11

<400> 3337

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ccccagcaat ttcttccatt caaccaactg gcagcattga actctcctgc ttatttacag 180
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caaccacagt tgttgccgtt ctaccagcac gctgcgcta acgctggcac cctcttacaa 300
ctgcaacaat tgctgccatt caaccaactt gctttgacaa acccagcagc gttctacaa 360
caacccatca ttgggtgtgc cctcttttag atctcttatg agtgata 407

<210> 3338

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A12

<400> 3338

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cacaaaacat caaggcacia caactacaac aacttggtgt aggaaacctt gctgcctact 120
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tgcaacaaca actaccattc agtcagctag ctgctgccta cccccagcaa tttcttccat 240
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tcagccagct agctgatgtg agccctgttg ccttcttgac acaacaacag ttggtgccgt 360
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<210> 3339

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A2

<400> 3339

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cttgcctcaa gttccattat tacacagatt ctcccaccag ttacttcaat gggcttcgaa 180
 caccagctg tgcaagccta taggctacaa caagcaattg ctgcgagcgt attacaacaa 240
 ccaattttcc aggtgcaaca acaatccttg gcacatgtaa caatacaaac catcgcatcg 300
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 tacttgcaac agcag 375

<210> 3340
 <211> 366
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A3

<400> 3340

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 tatttttctt tgaacttggg aattgtctag tttgggacat acgcggtatg cctgggttaag 240
 aacatgggaa atgtcaggtt agaacaggtc ctgctggccc agtttttggtc gtcgtcgaat 300
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 tctggt 366

<210> 3341
 <211> 391
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A4

<400> 3341

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 ccgcctctga tctccgcgag gttgtcagga ttcaatatgt cgaccagcac attcgctact 180
 tcttgcacgc tggtgggcaa tgtagaaca acgcaggcct ccagacagc ggtgaagagc 240
 ccttcgtctc taagcttctt cagccaagtt acgaagggtc caagcctgaa gacctccaag 300

aaactggatg tctccgccat ggctggatac aaggtgaagc ttgtcgggcc tgaagggtgaa 360
gagcacgagt ttgatgctcc agacgacgcc t 391

<210> 3342
<211> 280
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A5

<400> 3342

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cgcacggaac cggtcgagcg cagaactgcc gatgccagcc taacttctgc tgcagcacgt 180
tcggctactg cggcacgacc gacgactact gctgctgact ggtgccagtc gggcccgtgc 240
tgctcgggcg gcggaggagg ccgctgcggt ggctgatgca 280

<210> 3343
<211> 298
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A6

<400> 3343

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ggtggcactc gtcgagccgc atcgtctccc gcgccccgtc gccaccggct cacgccgacg 180
ccgtcgcctg cgcgcgcacc tccggccacg cgcgcggcgc gtcgtaccac ggcgcggacg 240
aggcgcccaa gggcctgcac gcggtgtacg tcggcagggc gcgccgtcgg tacctcgt 298

<210> 3344
<211> 333
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A7

<400> 3344

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tatttctgca agtgctgcta cggcgaccat tttcccgcaa tgctcacaag ctctatagc 120
ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg gtatgtgaaa acccaattct 180
tcaaccctac aggatccaac aggcaatcgc agctggcatc ttacctttat cacccttggt 240
cctccaacaa tcatcagccc tattacagca gttacctttg gtgcatttat tggcacaaaa 300
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<210> 3345

<211> 327

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A8

<400> 3345

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acgaaagggt caacgagctc tgtgccatct tggaaacccg caagccacc aaggccgaca 180
aagtcgctat cctaagcgac gctgcccgtc tctgaacca gctgcagggc gaggccaga 240
agcttaagca atcgaacgaa tcgctccagg agtccatcaa gagtcttaag gctgagaagt 300
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<210> 3346

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A9

<400> 3346

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attatctaac tccaaaaacc atgaagctgg tgcttggtg tcttgctttc attgctttag 120
tatcaagtgt ttcttgtaga cagacaggcg gctgcagctg tggtaacaa caagccatga 180
gcagcaacat catccacaac aacatcatcc acaaaaacaa caacatcaac caccaccaca 240
acatcaccag cagcagcaac accaacaaca tcaagttcac atgcaaccac aaaaacatca 300

gcaacaacaa gaagttcatg ttcaacaaca acaacatcaa ccgcagcacc accaccatca 360
acaacaacaa cagcaccaac atcaacatca atgtgaaggc caacaac 407

<210> 3347
<211> 449
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B1

<400> 3347

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cccgcaatgc tcacaagctc ctatagcttc ccttcttccc ccatacctct caccagcgat 180
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aggcatctta cttttatcac ccttgttctt ccaacaatca tcagccctat tacagcagtt 300
acctttggtg catttattgg cacaaaacat cagggcacia caactacaac aactcgggct 360
agcaaacctt gctgcctact ctgagcaaca gcagttacct ttggtgcatt tgttggcaca 420
aaacatcaag gcacaacaac tacaacaac 449

<210> 3348
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B10

<400> 3348

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gtccccgctc gcacgcctag cgcgatggcg caccgatgt acggctccgg accgctccga 180
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ctcgacgagg agatcgacgg gctgcactcc agggccgca tgctcaaagg ggtggcccag 300
gagataaatt ctgaagccaa gttccagaat gattttcttc atgaactgca aatgaccctt 360
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<210> 3349
 <211> 370
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B12

<400> 3349

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 gccattgggt tccatgaacc ctgcatgcaa tactgatgat gcacacgtgc ttgcagcttg 180
 atggcctgtt cagcctgat gctgcacaac tgacgcctta ccggttagag atgccagcga 240
 tgatgccaca gatgatgact cctaacatga tgtaccatag atatgccgat catgatgtgc 300
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 caatcatgct 370

<210> 3350
 <211> 421
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-B2

<400> 3350

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 aagctcctat agcttccctt ctcccccat acctctcacc agcgatgtct tcagtatgtg 180
 aaaatccaat tcttctaccc tacaggatcc aacaggcaat cgcagcaggc atcttacctt 240
 tatcaccctt gttcctccaa caatcatcag ccctattaca gcagttacct ttggtgcatt 300
 tattggcaca aaacatcagg gcacaacaac tacaacaact cgtgctagca aaccttgctg 360
 cctactctca gcaacagcag ttaccctttt gtgcatttgt tggcacaaaa catcagggca 420
 c 421

<210> 3351
 <211> 390
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-B3

<400> 3351

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gatgaatccg tatcaactgc cattacagaa aatgatgttg ttgctgctgc tgttttgtcg 120
ggtaaccgta acttcgaggg tcgtgtgcac cctttaactc gggctaacta tcttgcttca 180
ccacctcttg ttgttgctta tgcacttgcc ggaactgttg atattgattt tgagaaagag 240
cccattggat ttggaaagga tggcaaggaa gtctacttca gggatatatg gccctcaaca 300
gaagaaattg cgcaggttgt ccaatccagt gtgctgcctg acatgttcaa gggcacctat 360
gangctatca caaaaggcaa cccaatgtgg 390

<210> 3352

<211> 407

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-013-Q1-K1-B6

<400> 3352

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cttatgctcc ttggtctttc tgcaagtgtc gctaccgcaa ccattttccc acaatgctca 120
caagctccta tagcttcctt tcttccccca tacctctcac cagcgggtgtc ttcagtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagcagg catcttacct 240
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ttgttggcac agaacatcaa ggcacaacaa ctacaacaac tngtgcctag gaacccttgc 360
tgctactct caagcacagc agtttcttcc attcaaccaa ctggctg 407

<210> 3353

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A10

<400> 3353

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cttaggtccc ttggtctttc tgcaagtgtc gctacggcga ccattttccc gcaatgctcg 120
caagctccta tagcttccct ttttcccccg tacctctcac cagcgggtgc ttcggtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct 240
ttatcacctc tgttcctcca acaatcatca gccctattac aacagttacc tttggtgcat 300
ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct 360
gcctactctc agcaacagca gtttcttcca ttcaaccaac taggttcatt gaactctgct 420

<210> 3354

<211> 443

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G4

<400> 3354

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cgttgctctt tctgcatgtg ttgctaacgc gaccattttt cctcaatact cacaagctcc 120
tatagctgcc cttcttcccc cataccttcc atcaatgacc gcttcagttt gtgaaaaccc 180
agcccttcaa ccctacaggc tccaacaagc aatcgcaaca agcaacttac ctttatcacc 240
cctgttcttt caacaatcgc cagccctatc tttggtgcag tcattggtac aaaccatcag 300
ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc caagtagctc tggcaaacct 360
ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta cactgaacct 420
tgctgcttat ttacaacaac aac 443

<210> 3355

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-G5

<400> 3355

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gccacggcac cgccggcccc cgcccccgcc cgggccgcca agagcaaagg caaggccgac 120
gcttcctcct cgtcgtcctc ctctctcact ccaccgaggt tgcgccgcgc gcttgccgtc 180
gtgatggccg cgtcgctgct cgtgctcgcc gtggcgttct tggttggctc tggctccggg 240
gggatcgatg ggggcgcgagc ggctcccgtc gaggtggagg gcaccgaggt ggcctacggt 300
agtgtgatca agctgatgca cgagaagacg aagcaccgtc tgcactcgca cgatgtgccc 360
tacggctcag gcagcgggtca gcagtctgtc accgggtttc ctgaaggcga tgactcanat 420
agctactgga tcata 435

<210> 3356

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G6

<400> 3356

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gcataccaac aacaacaaca attgcaacag tttctgccag cgctcagtca actagccatg 120
gtgaaccctg ccgcctacct acaacagcaa caactgcttt catctagccc tctcgttgtg 180
ggtaatgcac ctacatacct gcaacaacaa ttgttgcaac agattgtacc agctctgact 240
cagctagctg tggcaaacc tgcctgctac ttgcaacagc tgcttccatt caaccaactg 300
actgtgtcga actctgtgtc gtacctacaa cagcgacaac agttacttaa tccactagca 360
gtgcctaacc cattgggtcac tgccttccta cagcagcaac aattgctacc atacagccag 420
ttctctttga tgaaccct 438

<210> 3357

<211> 446

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-G7

<400> 3357

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tattatccct gcttgcgctt cttgcgcttt ttgcgagcgc aacaaatgcg tccattattc 120
 cacaatgctc acttgctcct agttccatta ttccacagtt cctcccacca gttacttcaa 180
 tggccttcga acaccagct gtgcaagcct ataggctaca acaagcgatt gcggcgagcg 240
 tcttacaaca accaattgcc caattgcaac aacaatcctt ggcacatcta acaatacaaa 300
 ccatcgcaac gcaacagcaa caacagttcc taccagcact gagccaccta gccatggtga 360
 accctgtcgc ctacttgcaa cagcagctgc ttgcatccaa cccacttgct ctagcanacg 420
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<210> 3358

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-G8

<400> 3358

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 gaggggtgttg ctggttgccc tcgtctcctt ggctctcgtt gcgagcgcca cctccacgca 120
 tacaagcggc ggctgcggct gccagccacc gccgccggtt catctaccgc cgccggtgca 180
 tctgccacct ccggttcacc tgccacctcc ggtgcatctc ccaccgccgg tccacctgcc 240
 gccgcgggtc cacctgccac cgccggtcca tgtgccgccc ccggttcata tgccgccgcc 300
 accatgccac taccctactc aaccgccccg gcctcagcct catccccagc cacacccatg 360
 cccgtgccaa cagccgcata caagcccgtg ccagctgcag ggaacctgcn gcgttggcag 420
 cccccgatc ctgg 434

<210> 3359

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G9

<400> 3359

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 caatcgcaac aggcatttta ccattatcac ccttgctcct ccaacaaccg tcagccctat 120

tacagcagtt acctttggtc catttgggtg cacaaaacat cagggcaca caactacaac 180
aacttggtgct agcaaaccctt gctgcatact ctcagcaaca tcagtttctt ccattcaacc 240
aactgggtgc attgaactct gctggttatt tgcaacaaca attaccattc agccagctag 300
ttgctgccta cccccagcaa tttcttccat tcaaccaact agcagcattg aactctgctg 360
cttatttaca gcagcaacaa ctactaccat tcagccagct agctgatgt 409

<210> 3360

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H1

<400> 3360

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agatattagc cctccttgcg cttcttgccc ttttagtgag cgcaacaaat gcgttcatta 120
ttccacagtgc ctcacttgct cctagtgccca ttattccaca gttccttcca ccagttactt 180
caatgggctt cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga 240
gcgccttaca acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac 300
aaaccattgc aacgcaacaa caacaacaac aacagtttct gccatcactg agccacctag 360
ccgtggtgaa ccctgtcacc tacttgcaac agtagc 396

<210> 3361

<211> 313

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H10

<400> 3361

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gcgctggcgc ggcggggcgc cgcgccctg gcgcgatggc gcgggatgtg ctcgagctcg 120
gcttcggcgc cgcggcgcgc cgcggcgctg tctcagagg agctcatgcg gatggaacaa 180
gactgcagcg cgcataatta ccatccaatc cccatggtgt tttccaaagg agaaggttca 240
cacatagtgg accctgaagg catcaaatac attgatattc tctctgctta ttctgcagtc 300

aatcatggtc att

313

<210> 3362

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H11

<400> 3362

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cgcgagattt gaatacccat ctatacaatc ctacaggcta caagaggcca tcacagcaag 180
catcttacgg tcgttagcat tgaccgtcca acaaccatat gccctattgc aacaaccatc 240
cttagtgaat ctgtatctcc aaagaatcac agcacaacaa ctacaacaac ggttgcttcc 300
aacaattaat caagtagttg cagcgaacct tgctgcttac cttcagcaac aacaatttct 360
tccattcaat caactagctg gggTgaacc ttgctgcttac ttgcaggcac aacagctact 420
a 421

<210> 3363

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H12

<400> 3363

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atttcatgaa gagaagatga gagacatata tactggctgg tacatgagaa gataaaagag 180
agtcaagtca atttcaagta cttttgtgac tttttcaa atgtggggaac ttgaagccga 240
cgatttttat gaagaatcct cttattaagg atcaacctta cgtaggttgt atacaggaaa 300
ctttgtacac tagagcctgg gcatcttact ggctttttgc aacactttgc ttctcttctg 360
atggaatgtt tgtaagttgg tgact 385

<210> 3364
 <211> 334
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-031-Q1-K1-H2

 <400> 3364

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 acaagcgctt gcggcgagcg tcttagaaca accaattgcc caattacaac aacaatcctt 180
 ggcacatcta accatacaaa ccatcgcaac gcagcagcaa caagcactga gccacctagc 240
 cgtggtgaac cctatcgctt acttgcaaca acagctgctt gcatccaacc cacttgcttt 300
 ggcaaacgta gctgcatacc aacaacaaca acag 334

<210> 3365
 <211> 446
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-031-Q1-K1-H3

 <400> 3365

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 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cctatacgat ccaacaggca atcgagctg gcatcttacc 240
 tttatcacco ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
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 ttcttatttg caacaacaac aactac 446

<210> 3366
 <211> 410
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-031-Q1-K1-H4

<400> 3366

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ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg gtatgtgaaa acccaattct 180
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cctccaacaa tcatcagccc tattacaaca gttacctttg gtgcatttat tggcacaaaa 300
catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct actctcagca 360
acagcagttt cttccattca accaactagg ttcattgaac tctgcttctt 410

<210> 3367

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H5

<400> 3367

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aggggtttcta taaactagct atggcctatg cacccgttcc agatcttcac attatgtggg 120
tgcttcatct gtgtgatgca caccaggaga tgcaatcatg ggctgaagca gcacaatgtg 180
cagttgctgt agctggcgtg atcatgcagg cacttggttg aaggaatgat gctgtgtgga 240
gcaaggagca tggtgcttcg ctgcgcaaga tttgccctat tgtcaacact gatgtgagtg 300
cagaagcadc tgcagctgaa gtcgagggat atggtgcadc aaaattaaca gtggactcag 360
cgggtcaaata tcttcaacta gccaataaac ttttcacaca agctgaactc taccattttt 420
gtgcaagcat tc 432

<210> 3368

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-H6

<400> 3368

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 ttgcaacagt ttctaccagc gctcagtcaa ctagccatgg tgaaccctat cgcctaccta 180
 caacagcaac aacttctttc atctagcccg ctcgctatgg gcaatgcacc tacatacctg 240
 caacaacagt tggttgaaca acagttgctg caacaaattg taccagctct tactcagcta 300
 gctgtggcaa accctgctgc ctacttgcaa caactacttc cattcaacca actgactgtg 360
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<210> 3369

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G3

<400> 3369

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 gactcggcga gacatggcgg actggggccc cgtggtggtg ggcgtggtgc tgttcgtgct 120
 gctctcgccg ggctgctct gcgagctgcc gggcaccac cgccacgtcg acttcggcgg 180
 cttccacacc aacggcaagg ccatcttctg ccacaccctc gtcttcttcg ccgccttcac 240
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 tatgttgctg cggctctggac ttgcggaggt ctgagatcag aaaggaacgc cggccggcgg 360
 cgcgtcctgt gttgctgctc tggttcctct gcagttcgat cgattcgacg aagtgcttgt 420
 aact 424

<210> 3370

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F11

<400> 3370

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 gccgccaggc cagacatttt gttgcaggct gatgctgttg ctggctcgccg aacaaagcat 120

gcaggggtag ccatgtccac cggcccgaaa gcacgcaggc ccagccgtgg atacatccaa 180
 tgaggcaacg cgcttgagag gctttccagt ttggtcgtgc atgtaattgg cagtgtctga 240
 tgcctcaacc accgtgagca gacgtctgga taattggagg ctagcaccg gtctcctgct 300
 gctcagtggg gtactggggt tcatgggtgcc taggggctga gctgcaagac gtgaagacga 360
 cgggtgggaaa acgcgaggaa aagaaaaatc ttgggccttc tgccggcggtg ggcttgtggt 420
 gg 422

<210> 3371

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F12

<400> 3371

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 gccaacagcc gcatccaagc ccgtgccagc tgcagggaac ctgcccgtt ggccagcacc 120
 cgatcctggg ccagtgcgtc gagttcctga ggcacagtg cagcccgacg ggcagccct 180
 actgctcgcc tcaagtccag tcgttgccgc agcagtggtg ccagcagctc aggcaggtgg 240
 agccgcagca ccggtaccag gcatcttcg gcttggctct ccagtcctc ctgcagcagc 300
 agccgcaaag cggccaggct gcggggctgt tggcggcgca gatagcgag caactgacgg 360
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<210> 3372

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F2

<400> 3372

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 tgttgccctc ttatgtctct tggctcttct gcaagtgtg ctacggcgac cattttcccg 120
 caatgctcgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240

atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca acagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420
 aactctgctt cttatttgca ac 442

<210> 3373

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F3

<400> 3373

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 cgtatgctcc ttggtctttc tgcaagtgtc gctacggcga ccattttccc gcaatgctcg 120
 caagctccta tagcttccct tcttcccccg tacctctcac cagcgggtgc ttcggtatgt 180
 gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct 240
 ttatcaccct tggtcctcca acaatcatca gccctattac aacagttacc tttggtgcat 300
 ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct 360
 gcctactctc agcaacagca gtttcttcca ttcaaccaac taggttcatt gaactctgct 420
 tcttatttgc aacaacaaca acta 444

<210> 3374

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F4

<400> 3374

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 ctggtgctgg tgaccaacgt gggcgggcgc gccgacgtgc acgcgggtggc cgtgaagggc 120
 gaccgttccg cgggggtggca ggcctgtcgc cgcaactggg gccagaactg gcagagcaac 180
 acgtccttgg acgggcaggc cctctccttc cgcgtcacca ccagcgacgg ccgctccgtg 240
 gtctccagca acgtgcccc gcgcggtctg ggcttcggcc agaccttcag cggggcccag 300

ttcaactgaa caccctccat cggtccccga ggcgtcgtctc gtccgtcgtc gacgcggtgc 360
cacaagtagt agttttccgt tggcgtgggt agagtcg 397

<210> 3375

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F5

<400> 3375

gccacataaa aagtgttaatt aagtgcctac aacagagcta ctacgactaa cacggtaggc 60
tccatcataa tgctccttgc tctttacgca tgtgctgcta acgccacaat actacctcaa 120
tgctcacaag ctccatagc tttcataatt acaacatacc ttgcatcaat gatagcttga 180
ttatgcgaaa acagagctct tcaaccatat acgcttcaac aagcaatcgc agcatgcaac 240
ataccattat cacccttgca gtttcaacaa tcgccagccc tatctttggg gcagtcattg 300
gtacaaacca tcatggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacatcaat ttcttccatt caaccaactg 420
tctacactga accctgctg 439

<210> 3376

<211> 441

<212> DNA

<213> Zea mays

<223> unsure, at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-F6

<400> 3376

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acgggaacgg gacaggaccc caaaatctca gatccttcct gcccgcccgc cegtgcccggt 120
cgacgcgtcg ttcttgccgg ccgcgcctca cctccgccct ctctctctcc agggggatcg 180
gatacgccac aggetgcgcg atggtgctgt gggcttctcg ctacggctcc ctcatctgga 240
accccggtt cgacttcgac gacaaaatcc tcggcttcat caagggctac aagcgcacct 300
ttaatctcgc ttgcattgac cacagaggca caccggagca tccggcgagg acctgcacgc 360

ttganaccga cgacgaggcc atatgctggg gaattgcata ttgtgtcaag ggtggtccag 420
 aaaaagagct aanagcaatg c 441

<210> 3377

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F7

<400> 3377

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 cagtttcttc cattcaacca actggctgca ttgaactctg ctgcttattt gcaacaacaa 120
 ctaccattca gtcagctagc tgctgcctac cccagcaat ttcttccatt caaccaactg 180
 gcagcattga actctgctgc ttatttataa cagcaacagc taccaccatt cagccagcta 240
 gctgatgtga gccctgttgc cttcttgaca caacaacagt tgttgccgtt ctacctgcac 300
 gctgcgccta acgctggcac cctcttataa ctgcaacaat tgctgccatt caaccaactt 360
 gctttgacaa acccaacaac gttctaccaa caaccatca ttggcgggtgc cctcttttag 420
 attgcttatg agttatagtt c 441

<210> 3378

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-F8

<400> 3378

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 aggcagcgag taggagacaa ggggaaatgg ggaagggagc gcaagggagc gatgcggcgg 120
 cggcgggagg cgaggtggag gagaacatgg cggcgtggct ggttgccaag aacaccctca 180
 agatcatgcc cttcaagctc ccgccgtcg gcccttatga tgtccgcgtg cgcataaaag 240
 cagtggggat ttgcggcagc gatgtgcact acctcaggga gatgcgcata gcgcacttcg 300
 tggatgaagga gccgatggtg atcgggcacg agtgcgcggg cgtgggtcag gaggtgggag 360
 ccggcgtgac gcacctgtcc gtgggcgacc gcgtggcgct ggagccgggc gtcagctgct 420

ggcgct

426

<210> 3379

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G1

<400> 3379

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cgattaccat ttagccagct agctactgcc tactctcagc aacaacaact tcttccattt 120
aaccaattgg ccgcactgaa ccccgctgct tatttgcagc agcaaatact actaccattt 180
agccagctag ctgcagcaaa ccgtgcttcc ttcttgacac agcaacagtt gctgcctttc 240
taccagcagt ttgcggctaa ccccgcaacc ctcttacaac tacaacaatt gttgcccttt 300
gtccaacttg ctttgacaga ccagcggcc tcctaccaac aacacatcat tgggtggtgcc 360
ctctttttaga ttgcttatta gttgtaattc aataataaag ttttttggat gatgtatgtg 420
gccaaccaga aataagaagt tacatt 446

<210> 3380

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G10

<400> 3380

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gcctgcagct gcagcagcca ggtccctgcc cttgcaacgc agctgccggc ggtgtctact 120
actgaggaaa ctatgtactg tagtaataat gtaatggagc cgctgactag ctacctagct 180
cgctagttta ctcatcttagc ggcgatgagt aacgtagtgt caccatcac catgggtggc 240
agtgtgagca atgacctgaa tgaaccattg aaatggaaag gaataatata taaggaaaaa 300
agatgattgg aaaaaaacia agaaaaaata aaaaaaaat aaaaaaacia aaaaataaaa 360
aaaaaatata aaaaaaacia ct 382

<210> 3381

<211> 391
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-031-Q1-K1-G11

<400> 3381

gaaacacacc aagcgaagcg cactagcaac gacctaacaa caatggctac caagatgagt 60
 agccctcctt gcgcttcttg ccctttttgt gagegcgaaca aatgcgttca ttattccaca 120
 atgctcactt gctcctagt gctcattattcc acagttcctc ccaccagtta cttcaatggg 180
 cttcgaacac ctagctgtgc aagccaacat gcaacaacaa gcgcttgcg cgagcgtctt 240
 acaacaacca attgcccatt tgcaacaaca atccttgcca catctaacaa tacaagccat 300
 cacaacgcaa cagcaacaac agttcctacc agcactgagc cacctagcca tgggtgaacc 360
 tgccgnctac ttgcaagagc agctgcttgc a 391

<210> 3382
 <211> 429
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-031-Q1-K1-G12

<400> 3382

cagaccatta gctttatcta ctccagagcg cagaagaacc cgatcgacac catgagggtg 60
 ttgctcggtt ccctcgctct cctggctctc gctgcgagcg ccacctccac gcatacaagc 120
 ggcggtcgcg gctgccagcc accgcccgcg gttcatctac cgccgcccgt gcatctgcc 180
 cctccggttc acctgccacc tccggtgcat ctcccaccgc cgggtccacct gccgcccgcg 240
 gtccacctgc caccgcccgt ccatgtgccg ncnccggttc atctgccgnc gncacctatgc 300
 cactacccta actcaaccgc ccggcctcag cctcatcccc agccacaccc atgcccgtgc 360
 caacagccgc atccaagccc gtgccagctg cagggaacct gccgcgttgg cagcaccgcc 420
 atcctgggc 429

<210> 3383
 <211> 442
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-G2

<400> 3383

ctagcaacat agaaagcaca atagtgtacc aacaatggca gccaaaatat tttgcctgct 60
tatgtctcctt ggtctttctg caagtgtgctg tacggcgacc attttcccg c aatgctcgca 120
agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt cggtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt 240
atcaccttg ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcat 300
attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
ttatttgcaa caacaacaac ta 442

<210> 3384

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-F10

<400> 3384

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aatacggaga aaaatgtgtc ctcaccatcg aaacctgctc atgctactgt taatgcccta 120
ccgggcgata aggggtgttc taaaaacaaa tcacctgatg agccagggtta ctcaattttt 180
gttaagaatt taccttttga agcaactgtt gaaatggctg aacaagagtt cagcaagttt 240
gggtgtatta aatctggtgg tgtacaagtc aaatgccagc ctgatcagtt ttgctttggc 300
tttgtcgaat ttgagtctca gcaatccatg ctagcagcaa tcgaggcttc tagggtttat 360
ttcggcacan gagaatcata tgttgaagag aaaagaaacc aaacacgagt tgttgatggt 420
gttat 425

<210> 3385

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D6

<400> 3385

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cagcagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc aaacctttct 120
ccctactctc agcaacaaca atttcttcca ttcaaccaac tgtctacact gaaccctgct 180
gcttatttgc agcaacaact attaccattc agccagctag ctactgccta ctctcagcaa 240
caacaacttc ttccatttaa ccaattggcc gcactgaacc ccgctgctta tttgcagcag 300
caaatactac taccatttag ccagctagct gcagcaaacc gtgcttcctt cttgacacag 360
caacagttgc tgcctttcta ccagcagttt ggggctaacc ccgcaaccct cttacaacta 420
caacaatt 428

<210> 3386

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D7

<400> 3386

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aagatattag ccttccttgc gcttcttgcc ctttttagtga gcgcaacaaa tgcgttcatt 120
attccacagt gctcacttgc tcctagtgcc attattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgccggc 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
gcggtgggtga accctgtcac ctacttgcaa cagcagctgc ttgcatccaa cccacttgct 420
ctggcgaacg tagctgcata 440

<210> 3387

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D8

<400> 3387

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atTTTgttcc gatgaacctg attggattga aatgtttgat gatctgcttc ttcaaaccga 120
gaagaaggcc acagatctgc gagagctgat gcggaatgaa gcttccaaga attctcaggt 180
caccagacg aaaggaccaa gtggaccacg gccacgggga aggaaaccaa caaagaagga 240
tgtggtggac cttaggacca tcctcatcca ctgtgcacag gctgtggcag cagatgaccg 300
caggactgct aatgaattgt taaagcaaT aaggcaccat tccaagccaa atggtgatgg 360
aaccagagg ttagcacatt gctttgcaga tgggtcttgag gctcgattgg caggcacagg 420
gagtcagctt tacc 434

<210> 3388

<211> 413

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-D9

<400> 3388

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atTTTTgccc tccttgccct ccttgctctt tcagcaaggc ctgctacctc gacttttatt 120
ccacaatgct cacaacaata cctctctccg gtgacagccg cgggatttca atacccaact 180
atacaatcct acatggtaca agaggccatc caagcaagca tcttacggtc attagcatta 240
accctocaac aaccatatgc tctattgcaa cagccatcct tagtgcatct gtatctccaa 300
agaatcgagg cacaacaact acaacaacag ttgtaccaa caatcaatca agtagttgca 360
gcgaaccttg ctgcttacct ncagcaacaa cagtttcttc cattcaatca act 413

<210> 3389

<211> 461

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E1

<400> 3389

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 ttttgcctcc ttaggcggct tgggttttct gcaagtgtg ctacggcgac cattttccca 120
 caatgctcac aagctcctat agcttccctt ctcccccggt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaaccaat tcttcaaccc tataggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcacctt gtctctccaa caatcatcag cctattaca gcagttacct 300
 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacaacag tttcttccat tcaaccaact agctgcattg 420
 aactctgctt cttatttgca acaacaacaa ctaccattca g 461

<210> 3390
 <211> 390
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-031-Q1-K1-E10
 <400> 3390

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 gcgtcgccagc tcgtggggcg ctctctggcc gcgtccgagc cggccgtgtc cgtgcagctc 120
 ggcgaccacg gccacctcgc ctactccac accaaccagg cgtcctccg ccccaggctc 180
 ttcgcgcca aggacgaggt gttctgctg ttcgaagggg tgctggacaa cctgngtcgg 240
 ctgagccagc agcacgggct gtcaagcaag ggcgccaacg aggtgctcct cgtcatcgag 300
 gcctacaaga cgctgcgcga ccgcgcgcc taccggcca gcttcatgct cgcccagctc 360
 accggctcct acgccttcgt cctcttcgac 390

<210> 3391
 <211> 374
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-031-Q1-K1-E11
 <400> 3391

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt gcctcctgat 60
 gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcgaagc 120

tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caacctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggacaaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcta 360
 ctctcagcaa cagc 374

<210> 3392
 <211> 365
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E3

<400> 3392

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 aagctactat agcttccctt cttccccctt acctctcacc acctgagtct tcggtatggt 120
 aaaacccaat tcttcaacct tacaagatcc aacaggcaat cacagctggc atcttacctt 180
 tatcaccctt tatccctaca acaatcatca acctattac atcaactacc ttctatgcat 240
 taattgtcac aaaacattag ccacacaaca ctacaacaac tttgtctaac ataccttgct 300
 acctactctc agcaacaaca ctttctttca ttcaaccaac tagcttcatt taactctgct 360
 tctta 365

<210> 3393
 <211> 363
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E4

<400> 3393

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 cgaacatatt ttctctcctt atgctccttg ctattactac atgtgccgct aacgcaacaa 120
 ttgtccctca atgtcacac gctcctattg ctacccttct tgctccatac ctttcatgaa 180
 taatagcttc aacatgtgaa aacccaactc ttcaaccata ttggcttgaa caatcaatct 240
 catcaggcaa catacctcta tcgcactagc tgatctaaca attaccagcc ctatctttgg 300

tgcagacatc gctacaaacc atcgagtctc aacagctagc tcaactcgtg ctacctctga 360
tca 363

<210> 3394
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E5

<400> 3394

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ctacggcgac cattttcccg caatgctcgc aagctcctat agcttccctt cttcccccg 120
acctctcacc agcgggtgtct tcggtatgtg aaaacccaat tcttcaacc tacaggatcc 180
aacaggcaat cacagctggc atcttacctt tatcaccctt gttcctccaa caatcatcag 240
ccctattaca tcagttacct ttggtgcatt tattggcaca aaacatcagg gcacaacaac 300
tacaacaact tgtgctagca aaccttgctg cctactctca gcaacagcag tttcttccat 360
tcaaccaact agctgcattg aactctgctt cttatttgca acaacaacaa ctaccattca 420
gccagctacc tgct 434

<210> 3395
<211> 441
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-031-Q1-K1-E6

<400> 3395

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tgaggatggg gacattgtaa atgttgatgt aactgtatac tataaagggtg ttcattggtga 120
tttgaatgag acatattttg ttggaaatgt tgatgaagct tccaaacacc ttgtacgttg 180
tacctatgag tgcttgagaga aagctattgc gatagttaaa cctggagttc ggttccgaga 240
ggtcggagaa gtcataaaca gacatgtttc gatgtcaggt ttatctgtgg tgaaatctta 300
ttgtggccat ggcatagggg aactgtttca ctgtgcccc nacattcctc attattcaag 360

aaacaaggcc gttggtatca tgaaagctgg gcagacatTTT acaattgaac caatgggtcaa 420
 tgcanggggtt tggaatgato g 441

<210> 3396
 <211> 440
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-031-Q1-K1-E7

<400> 3396

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 tgaagtgcct ctcaacaagg aagtaatgga aagaaaggca agctaaagac cagcttaaca 120
 atgatggtac acatgagaat gttctcttct gttcagaagt tatttccaat acaagatatc 180
 cagttcggag caaagataga cgctgtact gttcagaagt tattccaata ccaaatagca 240
 tgcttcagaa gcacacaaaa actatggcat tgttcttggt ggtccctgtg cccgttcact 300
 aggagcgaga tntggggatc ttgagtacca ttgcatggct gntgtaggc tgtagccca 360
 tcgctatcgt gccgggnaat taactatggt gaggctagga gaaaatgaac tgatgtggat 420
 tggacacgcg cttttggaaa 440

<210> 3397
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E8

<400> 3397

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt gccgccgtat 60
 gctccttggt ctttctgcaa gtgctgtac ggcgaccatt ttcccacaat gtcacaagc 120
 tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctata ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa caacagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420

tttgcaacaa caacaactac ca

442

<210> 3398

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-E9

<400> 3398

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tggagaaaag ggaggtgcag atggaaagag aattactgct ggaggaaaga aagaaaacgg 120

agactgacaa ggcagatatt agaagggata ttgagagtct gcactcattg agcaagagtt 180

tgaaggaacg tcgagaggca tataacaggg acaggagcag actcatcgaa ctatttgaaa 240

agtacaaggc gtgcaaaaac tgtgggattt ctatttttga gggattggat tctctgctgc 300

ttaaagacag tgctgaaatt gagcatccaa gtttggtgtg tgaggagat gatcatgcct 360

tgaccaccga tacatcaggt ccagatacag gaaccct 397

<210> 3399

<211> 395

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-F1

<400> 3399

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gacctgaagc cgctctggtg gcgcgcgacg ccccggtaca gctactacta cggctgtggc 180

gagggcagtg gctcgggtccg cgccctatgc ttctccgacc tcatactgat cctggccctg 240

gtgatcacc ttctggttct ctactatcat tactgacacg tcacacccaa actatggcat 300

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atcgcatgcc tggttgctagg catctagctc atcgc 395

<210> 3400

<211> 443
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-031-Q1-K1-D5

<400> 3400

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tacttgtggt tgtttgagga gcataatgtg atggaatttc taattcttgc tggcgatcac 120
ctgtaccgga tggactatga aaagttcatt caggcacaca gagaaacaaa tgctgatatt 180
accgttgctg ccctaccgat ggatgagaaa cgtgcaactg catttggcct catgaaaatt 240
gatgaagaag ggaggatcat tgagtttgct gagaaaccga aaggagagca gttgaaagca 300
atgatgggtg acaccacat acttggcctt gatgacgtga gggcaaagga aatgccttat 360
attgctagca tgggtatcta tgttttcagc aaagatgtaa tgcttcagct tctncgtgaa 420
caattttctg aagccaatga ctt 443
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<210> 3401
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G8

<400> 3401

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ctggatcttt ctgcaagtgt atgctacctg atccatgtac atacattgct cacacgctac 120
tatagcttcc attcttacac catacctttg accacctgtg tcttcaatgc gtgaaacccc 180
aattgagcaa ccttacagga tccaacactc tataacaaca ggcattttac catgatcacc 240
cttgttccta caacaaccga tagccctatt acatcaaaca cttctgatcc atatgtttgc 300
acaaaacatc atggcacaac atctacaaca acatgctcta gcaaactctg ctacatactc 360
tcatcaacat cattctcgtg catgcaacta actactttca ttgcactcag ctgcttattt 420
tcaaca 426
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<210> 3402
 <211> 423

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-G9

<400> 3402

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gatactttcc ctccttatgc tccttgctct ttctgcatgt gttgctaacg cgacaatttt 120
ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaatgat 180
agcttcagta tgtgaaaacc cagctcttca accctatagg ctccaacaag caatcgcagc 240
aagcaacata cctttatcac ccttgtttca acaatcgcca gccctatctt tgggtgcagtc 300
attggtacaa accatcaagg cacagcagct gcagcaactc gtgctacctg tgatcaacca 360
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act 423
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<210> 3403
 <211> 346
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-H1

<400> 3403

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tgatgctcct tgggtcttct gcaagtgtg ctacggcgac cattttcccg cactgctcgc 120
aagctcctat agcttccctt catcccccg acctttcacc aacggtgtct atagtatgtg 180
aaaaccaat tcttcaacce tacaggatcc aactggcagt cacagctggc atcttacctt 240
tatcaccctt gttoctacaa caatcagcag ccctattaca tgagttacct ttggtgcatt 300
tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgct 346
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<210> 3404
 <211> 397
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-H10

<400> 3404

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gggtcttctt tgatattaca gcaactgctg ctacagtacg tgtagcacc gcgctgctaa 120
cgctcgcata tatcgataat gattactcgg tgcttatcac cagccaccgc aattaacaag 180
agtaatccac tattctgct actgttcaca ttccagcagg caaccacaac taggacagct 240
acgacttgcg gctcgtgcct accaccatca tgaggactat tatatgcaac aatactgggtg 300
aattcacagg caaaaacat tagggctgaa acagcagcaa ctccagctct agcagccatc 360
actgcctaata ctaaccaagg tcaatccagt cacatta 397

<210> 3405
<211> 405
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-H11
<400> 3405

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tcatatgctc aagatatgtc aacgatcatg tcagcaaac ttccatctc gacgactttg 120
ccttctatga gagccgccag aagttgatgc aagataagag gtccaaacag cagcatctcc 180
aaaatcaggt ctggtacact aggacccccg tttctgtcac cggcgaacta ccacaggaac 240
ctgctaattg gaagcccaat ccgtccatac cagatgggtg caccgcagac gtgaatgcct 300
tgaacgctcc cgcagagaa ggaatcactg ctctgttgt ttctatgca gcataagtgg 360
cccatcacgc accagagaaa cccgtctctc ccaacggagt cgcca 405

<210> 3406
<211> 313
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-H12
<400> 3406

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caaattgagt gcgtggacga tagttgatcc tattctgac gtcaacaatg agcctgttaa 120
gggtgcaatg ctgctgacca cttccactat ttctgtctc aaatctgggt aagatgtcct 180

tactgtactc tattaccgt tacggaaca cttcacgaag ctcatgccac tgttgacga 240
atcaaccacc actctacaa acgacctata gactcagcct tccttaatgg acccaaatgt 300
ccatggacat tcc 313

<210> 3407
<211> 399
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-H2
<400> 3407

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cgggatcttt atgcaagtgt tgctaccgca accatcttcc cacaatgctc acaagctcct 120
atagcttccc ttctttctc atacctctca ccatccgctt cttcaatgtg tgataccacc 180
attctccaac cctacacgat ccaatatgca atcacaacat gcatattacc attatcaccc 240
ttgatcctgc aacatccgct aatcctatta cagtaactac ctctgctcca tttatgtggc 300
acaaaacatc aggtgcacaa catctacaac aacttgtgct agcacaccta gctgcatact 360
cataccaaca tctacatctt ccattcaacc aactggctg 399

<210> 3408
<211> 344
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-H3
<400> 3408

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ggatgatcat acaacaacat catctaact taactaactc cttaaccac caacacacct 120
ttaccttatt gctccaaacc tactacatcc atctgtcttt ccacataatt tacatcaatc 180
atctccagaa gctgatgtct accaactca acaacagtat tagcaccaac aataactgct 240
actacaccac atccacacaa caacatcatt gagtaagcca acttcaacat aaccaactat 300
cacaatgcca tgtgcaacaa caccaacagt tacatgaact acac 344

<210> 3409
 <211> 385
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-H4

<400> 3409

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 cacctacata tgcaggccaa catgcacccat caagcgctcg ctgctagcgt cttacatcaa 120
 ccaattgccc aatctcatca tcaatcgctt ccacatctaa catatacaag ccatcacaac 180
 gcagcagcat caacaattcg cactagcact gaaccaccta gccatagtga accctgaacg 240
 atacttgcaa gagcatctgc ttgcattcga tccacttgct gtggccaacg tagttgcata 300
 accacacagc aacatctact tacaacagtg catgccaaac atcagtctac tagccatggg 360
 gaaccatgtc tactacgtac aacaa 385

<210> 3410
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-H5

<400> 3410

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 caatgtcac aagctcctat agcttgccctt cttcccccac accttccatc aatgatagct 180
 tcagtatgtg aaaaccagc tcttcagccc tataggctac aacaagcaat cgcagcatgc 240
 aacatacctt tatcaccctt gatgattcaa caatogtcag ccatatcttt ggcgcagtca 300
 ttgctacaaa ccatcagggc acagcagttg aagaaactcg cgctacctgt gatcaaccaa 360
 gtagctatgg caaacctttc tccctactct cagcatcaac aattttcttc attcaaccaa 420
 ctgtcta 427

<210> 3411
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-H6

<400> 3411

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gaggacacag gaggcggagg aggggcggtg cggcgcgagg tgctgaaggc gctcgtggtt 120
gtcggcggcg tcttctgct cgcgcgcctg cgcgcgtcca ctaccgatg ggaccacgcg 180
cgagccgtcg ccgacgcgt ctccggagaa aagttctcga gggagcaggc gaggaaggat 240
cctgacaact tcttcaattt gagaatgctc acatgtcctg caaccgatg ggtggatggt 300
tcaaggggtg tctactttga gcaggcattt tggagatctc cagactagcc ttgtagacac 360
agattctaca tggtaagcc ctgtccgaag gagatgaaat gcgatgttga gttgagttca 420
tatgcaat 428

<210> 3412

<211> 432

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-H7

<400> 3412

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ggatgccatc gtagcaagca tcttacggtc attagcatta accctccaac agccatatgc 120
cctattgcaa caaccatcct tagtgcctt gtatctccaa agaatcgcga cacaacaact 180
acaacaacag ttgctaccaa caatcaatca agtagttgca gcgaaccttg ctgcttatct 240
ncagcaacaa caatctcttt cattcaatca actagctgcg gtgaaccttg ctgtctactg 300
gcaggcacia caactctac aatttaacca acttgctcga agccctaata ctttctaact 360
gcaccaccag cttctgccat tccatctgca agctgtggaa aacattgctt ctttcttgcg 420
acaacaacaa tt 432

<210> 3413

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-H8

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cgccgagcag ccaattccaa agcgtgacaa agccgctgca aatgattcaa catacctcaa 120
tcctcaagct catgatagtg ttcttgggaat cattctggga ggtgggtgctg ggactagatt 180
gtaccccttg acaaagaagc gtgccaagcc tgcagtgcc a ttgggtgcc actatagact 240
gattgatatt cctgtcagca attgtctcaa cagcaacata tccaagatct atgtgctaac 300
gcaatttaac tctgcttccc tcaaccgtca cctctcaaga gctacggga gcaacattgg 360
agggtacatg aatgaagggt ctgttgaagt cttagctgca cagcatagcc cagataatcc 420
aaactgggt 428

<210> 3414

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-H9

<400> 3414

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cgaccaagat atttgccttc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
caattatagc ttcaatatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240
tcgcagcaag caacatacct ttatgcctt tgttgtttca acaatcgcca gccctatctt 300
tggtgcagtc attggtacaa accatcaggg cacaacagct gcagcaactc gtgctacctc 360
tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc 420
cat 423

<210> 3415

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-013-Q1-K1-A1

<400> 3415

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aggtaaggta gccaaacttt atgctagacc agtagagggc ttgaggcaag agagccaaac 120

atggcaaggt gatccataac taaataaaact tacttaaaca atcatctatg taaaatatag 180

catgtgtatg gtttcagggt tgcacttgca ttttatggga atccaactcg accacaactc 240

atagcccttg ttgctcaaga agaggttact tcgtctgggc gtcagtttga accgcctggc 300

atgcacatga tctatcttcc atactccgat gatattagat atcctgaaga agttcatgtg 360

acttctgatg atgca 375

<210> 3416

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-G7

<400> 3416

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atattttccc tgcttatgct ccttgctctt tctacatgtg ttgctaacgc gacaattttc 120

cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180

gcttcaatat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgcagca 240

agcaacatac ctttatcgcc cttgctgttt caacaatcgc cagccctatc tttggtgcag 300

tcattggtac aaaccatcan ggcacaacag ctgcagcaac tcgtgctacc tctgatcaac 360

caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420

caact 425

<210> 3417

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F10

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ccttatgctc cttggtatct ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 acaagctcct atagcttctc ttcttaccac gtacctatca ccagcagtgt gttcagcatg 180
 ctaaaaccca attcggtaac catacaggat ccaacatgca atcgcacctg gcatactacc 240
 tttatcacc tagttcctgc aacaatcatc agcccttata cagcagttca cctatggtgc 300
 atttattgtc acaatacatc atggcacaac aactacaaca acttgtgcta gcaaaccctag 360
 ctgtctactc tc 372

<210> 3418

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F12

<400> 3418

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 gcatcttacc tttatcacc ttgttctcc aacaaccgtc agccctatta cagcagttac 120
 ctttggtgca tttgttggca caaaacatca aggcacaaca actacaacaa cttgtgctag 180
 gaaaccttgc tgctactct cagcaacagc agtttcttcc attcaaccaa ctggctgcat 240
 tgaactctgc tgcttatttg caacaacaac taccattcag tcagctagct gctgcctacc 300
 cccagcaatt tcttccattc aaccaactgg cagcattgaa ctctgctgct tatttacaac 360
 agcaacagct accaccattc agccagctag ctgatgtgag ccctgttgcc ttcttgacac 420

<210> 3419

<211> 312

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F2

<400> 3419

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 cttgtactag taggcctggc tgctactct cagcacctac ttcaacctta catcacaacc 120
 aactgtctac atagaactct gcagccaatt ctcagcttca cctaccattt actcagctag 180
 oggctgatta cctgactgaa tctgcaacat ataaccaact gtcaccagag cactctgctg 240

ctctattgac aacaacgtga gttatcacca ttcacacagc tagcatatat gatacctgtt 300
gacttattga ca 312

<210> 3420
<211> 282
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F4

<400> 3420

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tctattgcta ctaatcatca tgggtcaaca ggttctaccg cttgcgctag caaacctgtg 180
tctctactgt caccagcagt atacggtggc attcatctaa gtcgactgct ggaagtatgc 240
ttactagctg caacgctaac atctaccata cagctactta ct 282

<210> 3421
<211> 465
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F5

<400> 3421

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ctaactatat ttaacataac accgactacc atacaaccag aaacctgctg cctaccccca 180
gcaattactt ccattcaacc aactggcaac attgaactct actgcttatt tacagcagca 240
gcaactacta ccattcagcc agctagctga agtaagccct gctaccttgt tgatacaacc 300
acagttgatg ccgttctacc aacacgctgc gcctaacgct gtcaccatct tacaactgca 360
acaattgctg ccattcaacc aactagcttt gacaaacaca gcagcgatct accaacaacc 420
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<210> 3422
<211> 426

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-012-Q1-K1-F6
 <400> 3422

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 aaccaattat tggatcaacc cgggccttct gatccttctg ttgtatacaa ggacagtatc 180
 tgcaaccgat gtgggaaagt agcaggagct ggtagcggtc tcaa atgtta cagggtgcatg 240
 ctaccttgcc acatttcatg cattgaggct actggttcac ccatttcaac tggaaagtgg 300
 tgttgtaaaa actgcagcgc tggcactaag gaaccagttg aaggagacat ggtcttagcc 360
 catggcaatc caaattgctt gcatgaaagt tgtgtcgtct gcgacagact tgcggnctgc 420
 aggtct 426

<210> 3423
 <211> 412
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-F8
 <400> 3423

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 gccgttgccg gaggcgcgcg tgtgccggcg ccggagcgcg ggcttcaagg ggggtctgcat 180
 gtccgaccac aactgcgcgc aggtgtgctt gcaggaaggc tacggcgccg gcaactgcga 240
 cggcatcatg cgccagtga agtgcatcag ggagtgctag ctagctagca gctataccgg 300
 cctttaatta aattaataag gatcgacgtc gcggtcggtc gctaaatatg tactactata 360
 cgtctacact acatgcaata atgcaccaca tgtacgcgta cgcgcgccga gc 412

<210> 3424
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-F9

<400> 3424

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tccatcetta tgctccttgc tctttctgca tgtgttgcta acgcgaccat ttttctcaa 120
tactcacaag ctcttatagc tgcccttctt acccataacc ttccatcaat gaccgcttca 180
gtttgtgaaa acccagccct tcaaccctac aggtccaac aagcaatcgc aacaagcaac 240
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gtacaaacca tcatggcaca acagctgcaa caactcgtgc taccagtgat cagccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt caaccaactg 420

<210> 3425

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G1

<400> 3425

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ttgttatgct acttgggtctc actgcaagtg ctgctacggc gaccattgtc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttccct ggtacctgtc accagcggcg tcttcggtat 180
gtgaaaaccc aattcttcaa cctacaaga tccaacaggc aatcacagct ggcattctac 240
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atctattggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcataccttg 360
ctgcctactc tcagcaacag cagtttcttg cattcaacca actagctgca 410

<210> 3426

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G10

<400> 3426

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 tacaacagtt acctttggtg catttattgg cacaaaacat cagggcacia caactacaac 240
 aacttggtgt agcaaactt gctgcctact ctcagcaaca gcagtttctt ccattcaacc 300
 aactagggtt attgaactct gcttcttatt tgcaacaaca acaactacca ttcagccagc 360
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 ctgcttattt ac 432

<210> 3427
 <211> 275
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-G11
 <400> 3427

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 gacaaacca gcagcgttct accaacatcc catcattggt ggtgcccttt tttagattac 180
 ttatgagtaa tagtacaata atatagttgc ttgtctgatg tatgaggctt tccagaaata 240
 tgaaagtaca tttgtagata atgctgaaat aagga 275

<210> 3428
 <211> 401
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-G2
 <400> 3428

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 cgtgccttat tccaaagcgc tcatttgctg gtaccggatc gcgggctcaa atggtgtcat 180
 catgtcctac cacaactgcg cgcacgtgtg ctgtgcatga agtctacggc acgagcagct 240
 gctacggcat catgctccat gcacgtgcat cacggattgc tagctagcta tcagctattc 300

cgcacttttaa ttccattaat acggatcgac gtctccgtcg gtcactacat atgtgctact 360
atacgtgtac actacatgca gtatatgtcc acatgtactc g 401

<210> 3429
<211> 310
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G3

<400> 3429

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acaacaatgc ttgactctg ctcaacttgc tttgacaaac ccatccgtct cataccaaca 180
acacatcatt ggtggtgccc tatTTtatat cgaatattag ctgtaattca ctattaaagc 240
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gatattggtc 310

<210> 3430
<211> 408
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G4

<400> 3430

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gacaaaacat tagggcacag ctactacaac aacttgtgct agcaaactt gctgcatact 180
ctgagcaaca tcagttcctt ccattcaacc aactggctag cattgaactc tgctgcttat 240
ttgcaacaac aatgaccatt cagccagcta gttgctgtct accaccagca attgcttcca 300
ttcaacctac tagcagcatt gaactctgct gctcatttac agctgcaaca actactacca 360
ttcagcctgc tagctgatgt gagccctgct gacttcttga cacaacaa 408

<210> 3431
<211> 383
<212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-G5
 <400> 3431

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 gctaacgcga caattttccc tcaatgctca caagctccta tagcttccct tctttccgca 180
 taccttccat caattatagc ttcagtatgt gaaaaccag ctgttcaacc atataggcta 240
 taacaagcaa tcgtagcacg ctacatacct ctatcgccct tgttgtctca acagtcacca 300
 gcgctatctt tgggtgcagtc attgctacta accatcatgg cacaacagct gcaggatctc 360
 gagctacctg tgatcaacca agt 383

<210> 3432
 <211> 404
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-G6
 <400> 3432

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 ccattattcc acaatgctca cttgctccta gttccattat tccacagtta ctaccaccag 180
 ttacttcaat ggccttagaa caccagctg tgcaagccta taggctacaa catgcgattg 240
 ccgccagcgt cttacaacaa ccaattgcc aattgcaaca acaatccttg gcacatctaa 300
 caatacagac cattgtaacg catcagcaac aacaggtcct accagcactg agccacctag 360
 ccatggtgaa ccctgtcgcc tacttgcaac agcagctgct tgca 404

<210> 3433
 <211> 412
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-012-Q1-K1-F1
 <400> 3433

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 tttgaatctc ttgtacacaa tctgattgag agaactagag atccatgcaa gaactgtttg 180
 aaggatgccg gaatatctac taaagaggtg gatgaagtac ttcttggttg tggaatgact 240
 agggttccaa aggtgcagga ggtagtctct gaaatctttg ggaagaaccc aagcaaagga 300
 gtcaatccag atgaagctgt ggccatgggt gctgcacttc aaggtggcat tctccgtgga 360
 gatgttaagg agcttcttct tcttgatgtt actgccctgt cactaggtat tg 412

<210> 3434

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-D2

<400> 3434

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 gctcgcggct gccagcgcca gcgcggggac ctctcgtg ccgggggtggg ccatcccgca 180
 caaccgcctc ccgagctgcc gctggtacgt gaccagccgg acctgcggca tcgggcccgcg 240
 cctcccgtgg ccggagctga agaggagatg ctgccgggag ctggcggaca tcccggcgta 300
 ctgccggtgc acggcgctga gcatectcat ggacggcgcg atcccgcggg gcccggaacgc 360
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<210> 3435

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D5

<400> 3435

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 gacaatgctc acttgcctcg agtgcatta ttccacagtt cctccctcca gttacttcaa 120
 tgggcttcga acaccagct gtgcaagcct ataggctaca acaagcgctt gcggcgagcg 180

tcttagaaca accaattgcc caattacaac aacaatcctt agcacatcta accatacaaa 240
ccatcgcaac gcagcagcaa caagcactga gccacctage cgtgggtgaac cctatcgctt 300
acttgcaaca acagctgctt gcatccaacc cacttgcttt ggcaaacgta gctgcatacc 360
aacaacaaca acagttgcaa cagtttc 387

<210> 3436

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D7

<400> 3436

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attttccctc aatgctcaca agctcctata gcttcccttc ttcccccata ccttccatca 180
attatagctt cagtatgtga aaaccagct cttcaaccat ataggtttca acaagcaatc 240
gcagcaagca acataccttt atcgcccttg ttgtttcaac aatcaccage cctatctttg 300
gtgcactcat tgggtacaaac catcaaggca caacagctgc agcaactcgt gctacctgtg 360
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<210> 3437

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D8

<400> 3437

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gacccagtct ctccactgag ggcacgctt cgcttcgct acgctcggct cgagcagaat 120
ataatgcaac gggcagtga cgcgctcagg ccacacggca atgtttctaa atatgctgtt 180
ctacatcaca tcagcgtca caagccagca atgcttgctg ctgactttac tagtgtcatg 240
tcagttacat ctgctcgct ataggatcga ggataggcac tggcactgta gcagatgtct 300
cgaatcctaa aggggaacatg gctgatgact cttcgctctg gtgcaccaca aacgttaccg 360

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376

<210> 3438

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D9

<400> 3438

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cctacaggct acaactagcg cttgcggcga ggccttaca acaaccaatt gcccaattgc 180
aacaacaatc cttggcacat ctaaccctac aaaccattgc aacgcaaca caacaacaac 240
aacagtttct gccatcactg agccacctag cctgtgtgaa cctgtgcacc tacttgcaac 300
agcagctgct tgcacccaac ccacttgctc tggcgaacgt agctgcatac cagcaacaac 360
aacagctgca acagtttatg ccagtgtcgt gtcaactagc catggtgaac cctgccgtct 420
acctacaact 430

<210> 3439

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E1

<400> 3439

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ccctcaatgc tcacaagctc ctatagcttc cttcttccc ccataccttc catcaattat 180
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aagcaacata cctttatcgc ccttggtgtt tcaacaatca ccagccctat ctttggtgca 300
gtcattggta caaaccatca aggcacaaca gctgcagcaa ctogtgctac ctgtgatcaa 360
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<210> 3440

<211> 111

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E10

<400> 3440

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tagaaataat caatatattg attgagattt atctcgatat atttctgaac t 111

<210> 3441

<211> 288

<212> DNA

<213> Zea mays

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<400> 3441

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ttgaatcgcc agcagttgct tcatcccaaa ctccagatga tgctgaatca cagccttat 120

gtgctgaaga ggactacatc tattctgttg acctattact ttaggagacc gcttatgtct 180

ataacgctgc ttcagagcgt cctacaactg ccaatgctat tgactctaata atcgatatctg 240

tgtactcatc tactgtactc gtactggatc aatgagacga ttatactg 288

<210> 3442

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E2

<400> 3442

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tctgcctccc cgccgccgag cccgccacca gcacgccttc tccgccaacg caaccgtcgc 180

cgacgccgca tcagccggaa acagggcagt gccagcgccg tcgacggcgt cgccgacccc 240

gaggcggatg acgtgtggcg tggggcgagc tgtgaggcgg cgtggccggc gaggcgggac 300

tcgaaacccg tcgtgctcgc ggtcggagac gacgcggtgg ggcggtccag gagcctcacg 360

gacgacgacc tcgaggagct caagggatgc gccgacctgg gcttcggctt caactacgac 420
gagatccc 428

<210> 3443

<211> 226

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E3

<400> 3443

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ccaacaatca cattcacgaa caatcacatt cgcgacagca tacggcctgc acagcagtaa 120
ctgggatctg ccatgctaca tctctgtcac atctatagag actggcgat tacctggacg 180
ctgaatccaa cggtgctgc ttgtgacaag tggtacactg gatgcc 226

<210> 3444

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E4

<400> 3444

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agctcctata gcttccttc tcccccata ccttccatca attatagctt cagtatgtga 180
aaaccagct cttcaaccat ataggcttca acaagcaatc gcagcaagca acataccttt 240
atcgcccttg ttgtttcaac aatcaccagc cctatctttg gtgcagtcac tggtacaaac 300
catcaggga caacagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc 360
aaacctttct cctactctc agcaacaaca atttcttcca ttcaaccaac tgtctacact 420

<210> 3445

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E5

<400> 3445

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ctgggatctg cgatcctaca gctcgattcc atcttttcag ccgggcatat tatcttgagg 180

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actgtacata ctatcatcac acccaacagc gtcgaaact cgctctgggg catccttaga 300

tttggagaca ttaatcaaga ctagctcttg attgctgtct gctggcatgt tctgatgtta 360

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<210> 3446

<211> 402

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-E6

<400> 3446

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gttcagaaga agagttagac tcgtcgattc ccaattggct tctctgcatt tgctttcaac 180

agcacaatgt tgtgggacct tcacagatgg aaccgcccac ctatggattc tgatatgggtc 240

cactcaggtg gaagaggtgg tttgcaggaa tcacgattta tagaaaagct cgtaagaac 300

gagcgccagg tacagggtct tccggacaat tgcagtcggg ttatgggtctg gaatttcaac 360

ctggaacctn ctcgagtcaa ctaccccaca ggctgggcac ta 402

<210> 3447

<211> 358

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E7

<400> 3447

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ctacctctca ataatgagac acattttaacc cagggagaga taacaactgt tgcgctaatt 120
 tacagacatt acaacttcta acatacaagg agataactgg aatcagccgt gctacatttg 180
 agacacagcc acagagattg acgcactacc tgcacgctgg atctaacgct gtctccttat 240
 tacaactgta acaatcgctg ccattcaacc aaagagctgt gacaaacctg agcaggatgt 300
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<210> 3448

<211> 372

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E8

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 catcaacatt cattgacctt tcaccaacaa gtagtggtta acatttatgc cttcatgcaa 300
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<210> 3449

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-E9

<400> 3449

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 ccggcagcca cctacgttgc ctcatacata atgcagcttc tacgctagcc agtacaaccg 180
 ttgctaagca aacctgacgt ggtcagctca gctggctact tacaggaaca tcaatcgaac 240
 tcgctcgctt tgatgttcga ctccaaggca ttagcattcc ctcacctgta ccagattgtg 300

tacagccata taagacaaag gtcactactc ttccaaatgg cattaagatc gcctcggaga 360
catcatcgag cccagcagca tctgtcggtc tgtacattga ctgcggttcc atttacgaaa 420
c 421

<210> 3450

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D12

<400> 3450

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gatggtgtcg aaatccatgg agctcacggt tacctgattg atcagtttct aaaggacggg 180
gtcaacgacc gcacagacaa atacggtggc agtctggaga accgctgccg gtttgcactg 240
gaagtaactc aagccgtggg cgacgaaatt ggagctgaca aggtctggat aaggctgtca 300
ccattogeta gctactcgga ggcgccggac tcagaccggg aagctcttgg catgtacatg 360
gcgaacgcgc tgaacgagtt cgcgattctc tactgccaca tggttga 407

<210> 3451

<211> 371

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C10

<400> 3451

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acgcatgcat gccacactca atcatgcaac actggcttga caactagatc gattatccgt 180
acctgattct acaacaactg catgcattac cgcttcagcc tataccagca atactgcatc 240
acatgatgac gcataaccatc atgcaaccgt tgacgttcca ccacatgac ataacaatca 300
tcttgacgat catgatcatc aacaacgacg acgacacaat gaccatgaga cacagcatca 360
gcagattatg c 371

<210> 3452
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C11

<400> 3452

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gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcattctacc 240
tttatcacc ttgttctctc aacaatcatc agccctatta catcagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgctactct cagcaacagc agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
ttcttatttg caacaacaac aactac 446
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<210> 3453
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C12

<400> 3453

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ccatttttcc tcaataactca caagctccta tagctgcctt tcttccccca taccttccat 180
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tggtgcagtc attggtacaa accatcaggg cagaacagtt gcagcaactc gtgctaccag 360
tgatcagcca agtagctctg gcaaacttt cccctactc tcagcaacaa caa 413
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<210> 3454
 <211> 445
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-031-Q1-K1-C3
 <400> 3454

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 tcattattcc acagtgtcga cttgtctcta gtgccattat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcca tcactgagcc 360
 acctagccgt ggtgaaccct gtcacctact tgcaacagca gctgcttgca tccaaccac 420
 ttgctctggc gaacgtagct gcata 445

<210> 3455
 <211> 453
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C4
 <400> 3455

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 ccaacgcggt gggacgcata actctttctt tgggtcggag gcaggctcac caagtggcgc 120
 tagtgtatth ggaaagaaga ggaattcatt cttcgatgat tctgttccaa gttctcctgc 180
 atacacatct gggttctctc caaaatttgg cgaaagccgt gacgatagct cctcttataa 240
 cttcgggagg tttgattcct tcagatccca agacactgga tcttccctc aggaaagccg 300
 tttctocagg ttcgactcca ttaccagctc caagggcgag aatgtatcag gatttgacac 360
 aggaaatagc tcacgaaatt ttggccggtt tgactctttt gatgacgccg acccattcgg 420
 ttcaagtgga cctttttaaag catcggaag ccg 453

<210> 3456
 <211> 444
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C5

<400> 3456

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cttccttatg ctcccttggtc tttctgcaag tgttgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180
gtgtgaaaac ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcatac tctcagcaac atcagtttct tccattcaac caactggctg cattgaactc 420
tgctgcttat ttgcaacaac aatt 444

<210> 3457

<211> 81

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C6

<400> 3457

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aaagtacatt tctagattct t 81

<210> 3458

<211> 154

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C8

<400> 3458

accactcat cctcacaact aaccatttaa caactccggt atatctatat attctccttc 60
cttatcctcc tgtctctctc tacatgtatc actagcacca acacttttcc ctaaacgctc 120
acactcttct atatctccca ttcttaccct atac 154

<210> 3459

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C9

<400> 3459

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gccactagtg cgagccatat tccaaggcac ttgccaccag tcatgccatt ggggtaccatg 120

aacccatgca tgcagtactg catgatgcaa caggggcttg ccagcttgat ggcgtgtccg 180

tccctgatgc tgcagcaact gttggcctta ccgcttcaga cgatgccagt gatgatgcca 240

cagatgatga cgcctaacat gatgtcacca ttgatgatgc cgagcatgat gtcaccaatg 300

gtcttgccga gcatgatgic gcaaatagat atgccacaat gtcactgcga cgccgtctcg 360

cagattatgc tgcaacagca gttaccattc atgttcaacc caatggccat g 411

<210> 3460

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D1

<400> 3460

taccttcagc aacaacaatt ttttccattc aatcaactaa ctgggggtgaa cggctgggct 60

tacttgcagg cacaacagct actaccattc aaccaacttg tcaggagccc tgctgccttc 120

ttactgcagc aacagttgct tccattccat ctacaagttg tggcaaacat tgctgctttc 180

ttgcaacaac aacaacaatt gctgccattt taccacagc ttgtgggaaa cattaacgcc 240

ttcttgcaac agcaacagct gctaccatta taccacagc atgtggcaaa caatgtcgcc 300

ttcttacaac aacaacaatt gctgccattt aaccaacttg ctttgacgaa tctaccacc 360

ttattgcagc agcccacat tgggtgtgcc atcttgtaga tattgttatg ctgtatactg 420

tagtaat 427

<210> 3461

<211> 408

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-031-Q1-K1-D10

<400> 3461

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tggcgactgc cagcaccggc gacgatgccg aatgggagga catgcggttg aagaggatcc 180
tggtcgatta catgcttcgg atgtcctact acaattccgc caccaagctc gctgagactt 240
ctggtattca ggacctcgtt gatattgatg tctttctcga tgcgaaaaga gtaattgatt 300
ctcttcagaa taatgaagtt tctcctgctt tagctnggtg tgcagaanac aagtctcggc 360
taaagaaatc gaagagtaag ctnggagttt tactgaggct tcaagagt 408

<210> 3462

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D11

<400> 3462

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tagccctcct tgcgcttctt gcccttttag tgagcgcgaac aaatgcgttc attattccac 120
agtgtcact tgctcctagt gccagtattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgcct 240
tacaacaacc aattgccc aa ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
ttgcaacgca acaacaacaa caacagtttc tgccatcact gagccaccta gccgtggtga 360
accctgtcac ctacttgcaa cagcagct 388

<210> 3463

<211> 156

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D12

<400> 3463

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ctcttttaga ttgcttatta gttgtaattc aataataaag ttttttgat gatgtatgtg 120

gcccaaccaga aataagaagt tacatttcca gattct

156

<210> 3464

<211> 236

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D2

<400> 3464

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ctgtacatga atcactaacg caacactttt cgttgagcgc tcacacgctt ctatagcttc 120

gattgttagc ctatacttac gatcattgat ctgctaagga ctggataacc tatctgttca 180

atcatattgg actcatcaat ctatcgtaga atgcagcata cctatatcgt gcttga 236

<210> 3465

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D3

<400> 3465

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttggct 60

cgttatgctc cttgggtctt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120

acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180

tgaaaaccca attcttcaac cctataggat ccaacaggca atcgcagctg gcattctacc 240

tttatcacc ttgttctcc aacaatcatc agccctatta cagcagttac ctttgggtgca 300

tttattggca caaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360

tgccactct cagcaacaac agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420

ttcttatttg caacaacaac aactac 446

<210> 3466

<211> 338

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-D4

<400> 3466

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agtcgcagca agcaacatac ctttatcgcc cttgttgttt caacaatcac cagccctatc 120
tttggtgcag tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc 180
tgtgatcaac caacttgctt tgacaaaaccc agcagcattc taccaacaac ccatcattgg 240
tggtgcccctc ttttagattt cttatgagtt atagttcaat aataaagttt tttgtctgat 300
gtttgtggct tcccagaaat aagaaagtac atttctag 338

<210> 3467

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-C1

<400> 3467

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gtcctctggcg ctcgctgcga gcgcgcctc cagtacaagc ggcggctgtg gctgccagac 120
accaccgttt catctaccgc ctccgttcta tatgccgctt ccgttctatc tgccgccgca 180
gcagcagccg cagccatggc aataccccac tcaaccaccg cagctaagcc cgtgccagca 240
gttcgggatec tgccggctcg gcagcgtcgg cagcccgttc ctggggcagt gcgtcgagtt 300
cctgaggcac cagtgcagcc cggcggcgac gccctacggc tcgccacagt gccaggcgct 360
gcagcagcag tgctgccacc agatcaggca ggtggagccg ctgcaccggt accaggcgac 420
atacgggtgtg gtctgcagt c 441

<210> 3468

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A3

<400> 3468

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gtctcccatc ccatggctcc ggcgctgagc ggggctctgg gcgcgtcgtc ggtggcgggc 120

ctgcgccctt gcgcggggag gagggcgccg tccgccgca gctcgggtgc gccgcgcggg 180
agcgggggtg tgaggtgctc cagagggctc aggtgggacg cccacagaag cagggggagg 240
ttgctcaggg tgaggtgca tgcggccgctc ggggagaagc ccgccgagga ggaggcggct 300
ggggagaagt tcgagtacca ggcggagggtg agccgcttaa tggacttgat cgtccatagt 360
ctgtacagtc ataaggaggt atttctccgg gagcttgta gcaatgagc tgatgcgctg 420
gataagct 428

<210> 3469

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A6

<400> 3469

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aaccaactag ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 120
cagctacctg ctgcctacc ccagcaattt cttccattca accaactggc agcattgaac 180
tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc 240
cctgctacct tcttgataca accacagatc gctgacgttc taccagcacg ctgcgcctaa 300
cactggcacc ctcttacaac tgctacaatt gctgccattc aaccaacttg ctttgacaaa 360
cccagtatcg ttataccaac aacccatcat tgggtgctgcc ctctttttaga tac 413

<210> 3470

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A7

<400> 3470

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aagatggtcc ttgatgactg gaagaggcta tactcaaaca caaagactaa cttccgggag 120
gttgccatca aaggtttctg ggacatgtac gaccagagg gctactcttt gtggttctgt 180
gactacaagt acaatgatga gaacaccgtc tcctttgtga ccctgaacaa ggttggtgga 240

ttcctgcagc ggatggacct gtgccgcaag tacgcctttg ggaagatgct cgtgataggc 300
tctgagccac ccttcaagct gaagggcctt tggctcttcc gtggccagga tgttcccaag 360
tttgtaatgg acgaggtcta tgacatggag ctctacgagt ggaccaaggt ggacatctct 420
gatg 424

<210> 3471
<211> 391
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-031-Q1-K1-A8
<400> 3471

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aaccaactga cagctttgaa ctctcctgct tatttacagc agcaacaact actaccattc 120
agccagctag ctgggtgtgag ccctgctacc ttcttgacac aaccacaatt gttgccgttc 180
taccagcagc ctgcgcctaa cgctggcacc ctcttacaac tgcaacaatt gctgccattc 240
aaccaacttg ctttgacaaa cccaacagca ttctaccaac aaccatcat tgggtggtgcc 300
ctctttttaga tttcttatga gttatagttc aataataaag ttttttgtct gatgtttgtg 360
gcttcccaga aataagaaag tacatttcta g 391

<210> 3472
<211> 170
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-031-Q1-K1-A9
<400> 3472

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ccgagcatct tacagcgatt atccatatgc cttcgacagt cctattgctt atggcggcac 120
ctatgcctac ggcatttgat tttccgaaga aaccatgcc atcaactact 170

<210> 3473
<211> 364
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-031-Q1-K1-B10

<400> 3473

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tncaccaccg ggggtgcgacg ggaggtggcg ggggctacgg cacctccacg cggngggcggc 120
atgcacggga ggcgacgacg cagcagaagc agggcgccat gatgacggcg ctcaaggccg 180
cgacggccgc gaccttcggc gggtcgatgc tgggtgctgtc cgggctgatc ctggccggca 240
ccgtgatcgc gctcacggtg gccacccccg tgctgggtgat cttcagcccg gtgctggtgc 300
cggccgncat cgcgctggcg ctcatggcgg cggggttcgt cacctccggc ggcctcggcg 360
tcgc 364

<210> 3474

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B11

<400> 3474

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caactgcatt tgggctcatg aaaattgatg aagaaggag gatcattgag tttgctgaga 120
aaccgaaagg agagcagttg aaagcaatga tggttgacac caccatactt ggccttgatg 180
acgtgagggc aaaggaaatg ccttatattg ctagcatggg tatctatgtt ttcagcaaag 240
atgtaatgct tcagctcctc cgtgaacaat ttcctgaagc caatgacttt ggaagtgagg 300
ttattccagg tgcaaccagc attggaaaga gggttcaggc ttatctgtat gatggttact 360
gagaagatat cggtagcatt gcggcatttt ataatgca 398

<210> 3475

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B12

<400> 3475

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tattccctcct tgcgcttctt gcgctttttg cgagcgcaac aaatgcgtcc attattccac 120
aatgctcact tgctcctagt tccattattc cacagttcct cccaccagtt acttcaatgg 180
ccttcgaaca cccagctgtg caagcctata ggctacaaca agcgattgcy gcgagcgtct 240
tacaacaacc aattgccccaa ttgcaacaac aatccttggc acatctaaca atacaaacca 300
tcgcaacgca acagcaacaa cagttcctac cagcactgag ccacctagcc atggtgaacc 360
ctgtcgccta cttgcaacag cagct 385

<210> 3476

<211> 374

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B2

<400> 3476

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tttatcacc ttgttccttc aacaatcatc agccctatta cagcagttac ctttggtgca 180
tttattggca cataacatca ggtcacaaca actacaacaa cttttgctat caaaccttgc 240
tgccactct catcaacatc tgtttcttca ttcaaccatc tatcttcatt gatctctact 300
ttttatTTTT tacaacatct tcttccattc tattcagctt tctttttctt accttctatc 360
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<210> 3477

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B3

<400> 3477

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cctctcccc cgtccacct tccgagaggc tcgagccctg atcccacgct gagggcggcg 180

gtgttaggag tttagcgatg gcgaggtggc ggccggcggc gctgctggta gtggcgctga 240
cagcggttct gtcggcggcg cggcgggcgg atgcgctctc agtgacggtg accgacaccg 300
agtgtatcca cgagttcggt ccgtacgagg gtgacaccgt gtccgggaac ttcgttcgtg 360
tcgaccacga catcttctgg agctccgatc acccaggca 399

<210> 3478

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B4

<400> 3478

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ggcggggagg ataccgagga tgaggattgc gtggtcggcg gtggcggtgg cggcgacgac 180
gacgaggatg atgaggacta cgtcgatggc gacggcagcg atgatgagga cgctgcgctc 240
gctggctgagg ccgcggagga agaggagagg aggaggcctt tcaagaggct gaagagaacc 300
cacgacgcgc ggggtgggag cggtagcagt gccaaaggcg gggggaatgt gaggacgctc 360
gccgatctcg atagtggcaa ggggaaccgc gggttccgac gagaactccg aagacgatga 420
tgaatggaca 430

<210> 3479

<211> 470

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-B6

<400> 3479

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aatggcagcc aaaatatctt gcttgcttag gtccttggg ctgtctgcaa gtgctgctac 120
cgcaaccatt ttcccacaat gtcacaagc tcctatagct tcctttcttc ccccatacct 180
ctcaccagcg gtgtcttcag tatgtgaaaa cccaattctt caacctaca ggatccaaca 240
ggcaatcgca gcatgcatct tacctttatc acccttggtc ctccaacaac cgtcagacct 300

attacagcag ttacctttga tgcatttgct ggcacaaaac atcaacgcac aacaactaca 360
acaactcgtg ctaagaaacc ttgctgccta ctctcagcaa cagcagtttc ttccattcaa 420
ccaactggct gcacggaact ctgctgctta tttgcaacaa caactaccat 470

<210> 3480
<211> 445
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-031-Q1-K1-B7
<400> 3480

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caccgatcga cctgcacgcc agtctcggtc tcttccgaag gcgtcgcgcg cggttgtttg 120
agaggagagg aggaagatga gggagtgcac ctccgtccac atcgggcagg ccggcatcca 180
agtcggcaac gcgtgctggg aactttactg cctcgagcac ggcattccagc ctgatggcca 240
agtgcctgga gataagaccg cgggacatca cgatgatgcc ttcagcacct tcttcagcca 300
gactggtgct gggaagcacg ttccccgtgc aatcttcggt gatctagaac ccactgtgat 360
cgatgaggtg cgcactggca cgtaccgnca gctcttcac cctgagcagc tcactcagtg 420
caaggaggat gccgctaaca atttc 445

<210> 3481
<211> 239
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-031-Q1-K1-B9
<400> 3481

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cgcgatggtg ctgtgggtct tcggctacgg ctccctcatc tggaaccccg gcttcgactt 180
cgacgacaaa atcctcgggt tcactcaagg ctacaagcgc acctttaatc tcgcttgca 239

<210> 3482
<211> 446

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-031-Q1-K1-A2
 <400> 3482

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 ctgcttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
 tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg gtcttcggta 180
 tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcagc tggcatctta 240
 cctttatcac ccttggttct ccaacaatca tcagccctat tacaacagtt acctttgggtg 300
 catttattgg caaaaacat cagggcacia caactacaac aacttggtgt agcaaacctt 360
 gctgcctact ctcagcaaca gcagtttctt ccattcaacc aactagggtc attgaactct 420
 gcttcttatt tgcaacaaca acaact 446

<210> 3483
 <211> 419
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G9
 <400> 3483

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 ctccaaaaac catgaagctg gtgcttgtgg ttcttgcttt cattgcttta gtatcaagtg 120
 tttcttgtac acagacaggg ggctgcagct gtggtcaaca acaaagccat gagcagcaac 180
 atcatccaca acaacatcat ccacaaaaac aacaacatca accaccacca caacatcacc 240
 agcagcagca acaccaacaa caacaagttc acatgcaacc aaaaaacat cagcaacaac 300
 aagaagttca tgttcaacaa caacaacaac aaccgcagca ccaccaccaa caacaacaac 360
 aacagcacca acatcaacat caatgtgaag gccaacatca tcatcaccaa caatcacia 419

<210> 3484
 <211> 390
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H10

<400> 3484

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caccgcgagc agaggagata tgctgcaggg gaagggagga gcggcgagga aggaggaggt 120
ggtcaccagg gagtacacca tcaacctcca caagcgctc cacggctgca cattcaagaa 180
gaaggcacc aacgcctatca aggagatcag gaagtttgcg cagaaagcca tgggcaccac 240
ggacattagg atcgatgtga agctcaacaa gcacatctgg agcagcgga tcaggagcgt 300
gccgcggagg gttcgtgtga ggatcgcccg caagaggaac gacgaggagg atgccaagga 360
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<210> 3485

<211> 383

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H11

<400> 3485

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cggctggat ggatcccaat ggctcaaaa ctggagccct tttgctcccg accatcgaga 180
ggcgggtgac gtcgctcca tccgtcattg tcatcgggcg tggcatctcg ggcgttgag 240
ctgcccgtgc cctctccaat tcttcattta aggtgactgt tttggaatcg agagatcgta 300
ttggcggggc cattcatact gataactcgt ttggatgcc aattgatatg ggagcctcat 360
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<210> 3486

<211> 141

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H12

<400> 3486

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141

<210> 3487

<211> 422

<212> DNA

<213> Zea mays

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<400> 3487

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cgggcggcagg tgccgaggct tccgccgcgc ctgcttctgc accacgcact gccactgatt 300
cgctcgccca gcggccggct ggcgtcgccg tcgatcgctg cgcgaccagt ccatggctcc 360
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<210> 3488

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H3

<400> 3488

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ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
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gcatttattg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc tagcaaacct 360
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tgcttc 426

<210> 3489
 <211> 430
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-H4

 <400> 3489

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tggtccagct tctgctgta cagcattatt ggaagctttc cgtctggaca tcaaggaatc 180
tcggatcaaa tctatgcgtg cagcaatata tgaacattt cctgagccta ataggcggct 240
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gactccatca gcagttgctg catgtatggc cccactcttg ttgcgtcccc ttcttgctgg 360
tgaatgcgag ctggaagatg attttgacat gagtgatgac agtgctgctc agcttattgc 420
tgctgcaaat 430
  
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<210> 3490
 <211> 325
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-H5

 <400> 3490

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gtccgcgtgg agccggagca cggctttcac cagctgaatc cgtcgccgtc gtcgtcgtcg 180
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<210> 3491
 <211> 427
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-030-Q1-K1-H6

<400> 3491

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tcagtgatct agatgaagtt attcttgtgg gtggatccac ccgaatccct gcagttcaag 180
aacttgtgag gaagcttact gacaaagatc ccaatgttac ggtcaaccct gatgagggtg 240
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ttctggatgt tactccatta tctcttgggt tggagacatt gggaggagtg atgacaaaga 360
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atggaca 427
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<210> 3492
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H7

<400> 3492

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CCCTCAATGC TCACAAGCTC CTATAGCTTC CTTCTTCCC CCATACCTTC CATCAATTAT 180
agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgcagc 240
aagcaacata cttttatcgc ctttgttgtt tcaacaatca ccagccctat ctttgggtgca 300
gtcattggta caaaccatca gggcacaaca gctgcagcaa CTCGTGCTAC CTGTGATCAA 360
ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattcaa 420
ccaactgt 428
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<210> 3493
 <211> 344
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-H8

<400> 3493

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ctgtcaagtc taggtctagc tgcagaagca tcatgtacct gcagctgctc cagtagactc 180
aagagaatct cgtatgaaat ttatgccagc agctatatct gaaacatata ctgagcctaa 240
taggcggctg ctacagacaa ttttgaaaat gatgcatacc gctgcttctg atactgccga 300
gaatagaatg actccatcag cagttgctgc atgtatggcc ccac 344

<210> 3494

<211> 400

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-H9

<400> 3494

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tgccctcctt gctctttcag caagcgtgc tacctcgact tttattccac aatgctcaca 120
acaatacctc tctccggtga cagccgcggg atttcaatac ccaactatac aatcctacat 180
ggtacaagag gccatccaag caagcatctt acggtcatta gcattaaccc tccaacaacc 240
atatgctcta ttgcaacagc catccttagt gcatctgtat ctccaaagaa tcgcggcaca 300
acaactacaa caacagttgc taccaacaat caatcaagta gttgcagcga accttgctgc 360
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<210> 3495

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A1

<400> 3495

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ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct tccatcaatt 180
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 gcaagcaaca tacctttatc gcccttggtg tttcaacaat cgccagccct atctttggtg 300
 cagtcattgg taaaaacat cagggcacia cagctgcagc aactcgtgct acctctgatc 360
 aaccaagtag ctctggcaaa cctttctccc tactctcagc aacaacaatt tcttccattc 420
 aaccaactgt ctacactga 439

<210> 3496

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A10

<400> 3496

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 aaccatcacc accctcccta cacatccaca cacacacctt aatcaaacia cccactatcc 180
 aatactacct actactcacc accacctac cctccatctt aacattatta tccacacacc 240
 tacaacaccc aacctcccta ctaacaacca tatactccac ccatttctact actccaacca 300
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<210> 3497

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A11

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 cgttctacca gcacgttgcy cctaacgctg gcacctctt acaactgcaa caattgctgc 180
 cattcaacca acttgctttg acaaaccag cagtgttcta ccaacaaccc atcattggtg 240
 gtgccctctt ttagatttct tatgagttat agttcaataa taaagttttt tatctgatgt 300

ttggggcttc ccagaaatta gaaagtacat ttctagattc tt

342

<210> 3498

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-031-Q1-K1-A12

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accacaccac aatttcacct ttaaagctgc aatagaatac ccaatatcta tcattatcat 180

cactttacta catatctttc ctactatctt acattttcat tcccacatat catttcccaa 240

gcaacttttc atacaacctc atgatccacc atatgtacta cagtttcctt accacaatca 300

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<210> 3499

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G8

<400> 3499

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tccctactct cagcaacaac aatttcttcc attcaaccaa ctgtctacac tgaaccctgc 180

tgettatttg cagcaacaac tattaccatt tagccageta gctactgcct actctcagca 240

acaacaactt cttccattta accaattggc cgcactgaac cccgctgctt atttgcagca 300

gcaaatacta ctgccattta gcgagctagc tgcagcaagt cgtgcttcct tcttgacaca 360

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acaac 425

<210> 3500

<211> 204

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-B6

<400> 3500

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 cacagttctc actagcatct agtgccatta ctccacagct cctatcacta gccactttaa 180
 tgggctccta acatccatga gcgc 204

<210> 3501
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-B7

<400> 3501

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 aatgctcaca agctcctata gcttcccttc ttccccata ccttccatca attatagctt 180
 caatatgtga aaaccagct cttcaaccat ataggcttca acaagcaatc gcagcaagca 240
 acataccttt atcgcccttg ttgtttcaac aatcgccagc cctatctttg gtgcactcat 300
 tgggtacaaac catcagggca caacagctgc agcaactcgt gctacctatg atcaaccaag 360
 tagctctggc aaacctttct ccctactttc agctacaaca atttcttcca ttc 413

<210> 3502
 <211> 290
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-B8

<400> 3502

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 caacagttgc ttccattcaa ccaactgtct gcagtcaaac tctgctgcgt acctacaaca 180

gctacatcag ttacttaata cattgccagt ggctaacca ttggtcgcta ccttactgca 240
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<210> 3503

<211> 376

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-B9

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tattttacagc acacaactac taccattcac cagctgctgg tgtgagccct gctaccttct 120
tgacacacca cagtgtgccg tctaccagca cgttgcgccct aacgctggca ccctcttaca 180
actgcacaat tgctgccatt caccaacttg ctttgacaaa cccacagtgt tctaccaaca 240
acccatcatt tgggtgtgcc tcttttagat tcttatgagt tatagttcaa taataaagtt 300
gcttatctga tgtttgtggc ttccccaaaa taagaaagta catttctaga ttaaaaaaaaa 360
taaanaacaa caaaaa 376

<210> 3504

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C1

<400> 3504

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cttttagtatg tgacaacca acccttcaac cctacaggat ccaacaagca atcgcaacaa 240
gcaacttacc tttatcacac ctgttctttc aacaatcgcc agccctatct ttggagcagt 300
cattggtaca aaccatcacc gcagaacaga tgcagcaact cgtgctacca atgatcagcc 360
aaatagctct cgcaaacctt tccccctact atgagcaaca acaatttctt c 411

<210> 3505
 <211> 297
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C11

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 tcttccccgg aagtgcctcc gagaataaat ttttcttata tgattgtcta aaacctataa 180
 cgggtgtaat ggtatcacag tgggttggttg atcatcaagt gactcatatt atgtcaagtc 240
 tatgtgtcat cgttaaactt ttaaccgaca ttatattaca aaagttatgc attttcc 297

<210> 3506
 <211> 416
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C12

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 tccttaatac tcacaagctc ctatagctgc cttcttccc ccatacctgc catcaatgac 180
 cgcttcagtt tgcgaaaacc catcccttca accctacaag ctccaacatg caatcgcaac 240
 aagcagctta tctttatcac ccctgttcta tcaacaatcg ccagtcctat gtatggagca 300
 gtcattggta caaacatca gggcacaaca gctgcaacaa ctggtgctac cagtgatcag 360
 tctagtagct atcgcaaacc tttattcata ctattagcta catcgatctc ttccat 416

<210> 3507
 <211> 402
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C2

<400> 3507

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tcttcaatgt ccttacaaca cacatctgca ctagcctata cgctacaaca tgcgattgtg 240
gcgagcgctca tacaacaact aatttcccaa tagcaacatc aaatgttggc acatttaaca 300
ctacaaacca tctgaacgca acagcaatag catggattac catcactcta ccaactagtc 360
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<210> 3508

<211> 361

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C3

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aaaactgatt tgatgcttgc tgatcaaattg atcaatctag ttgagttttt tcattccaag 180
tcattcttgc atagagatat caagcctgac aattgtctca tgggtctcgg gaaaagagca 240
aaccaagggt atgttatcga tttaggactt gcaaagaagt acagacatac attatcacac 300
cgacacattc catacacaga gaacacgaac ttgactggaa catgcagata tgcacgtgtt 360
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<210> 3509

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C4

<400> 3509

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ctctcctttg ggaagctggt cagccgcctc ttcgccaaga aggagatgag gattctcatg 240
gtcgggctcg atgccgcggg taagaccacc atcctctaca agctcaagct cggcgagatc 300
gtcaccacca tccccactat cggattcaat gttgaaactg ttgagtataa gaacattagc 360
ttcactgttt gggatgttgg tggccaggac aagatcatgc ccctgtggag gcactacttt 420
cagaacacac ag 432

<210> 3510

<211> 214

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C6

<400> 3510

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caatgtcac aagctcctat agcttccttt cttcccccat acctctcacc agcgggtgtct 180
tcagtatgtg aaaaccaat tcttcaaccc taca 214

<210> 3511

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-C7

<400> 3511

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ggggcctcat agcgcgcctg ctccaacatc tccgtcctct tcagctgtct cggcatcgat 180
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tcaatttcaa cattgccttc tatggctgag cgacacattc acaccgacac tgtcaagaca 300
ccaaggaccc gtacatggca tctgcttaaa gtgaagcgcg tgattgatct ggctaaagtc 360
ctgtctgagc acattcttgt cacataggg 389

<210> 3512

<211> 165
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-012-Q1-K1-C8

 <400> 3512

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 accatttatc ggcagcaatt tacgccatac ataccagcca tcgaggctct atgacaactc 120
 aatcgaccga gcaacgcgtc cgcaacagag gtcaaaccct cttct 165

<210> 3513
 <211> 405
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-012-Q1-K1-C9

 <400> 3513

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 accgcgaggc tcgcatcctc gtcctcggcc tggacaatgc tggcaagacc accatactct 180
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 cgggtgcattt caacaacatc aagttccaag tatgggatct tgggtggtaa acaagcatca 300
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 gcgatacaga taggcttgta acagcataag aagaattcca tgcca 405

<210> 3514
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-012-Q1-K1-D10

 <400> 3514

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 ctctccccc cgatcccgct cctataaatt gcgccccgc cgccacagcy gaccgcaagc 180

acgcaatcac acagctcgct gctgctgccg tctccccgtg tctgtcgtt ctccccgtgc 240
 cggggggcgga agagttcggc gggcggttgg ggattgctcg ggagccccgt gatggcgaag 300
 ctgtacgtgc aagcgttccc gcccgcggat ctgaacaaga acaccgagtg gtttatgtac 360
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<210> 3515

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-D11

<400> 3515

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 tccaggagga gcaacaacaa caaccatgtg agttatgtgg atctcaacaa gctactcaaa 180
 gtgcgggtggc aatcttgaca gcagcacaat acctaccatc aatgtgcggc ttgtaccact 240
 catactacca aaataatcca tgcagcagca atgacattag tgggtgtttgc aattgaagaa 300
 ttgtgtctac cttagcgtta tactcatata acggtgttaa gcaataaagt accatacatt 360
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<210> 3516

<211> 413

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-B3

<400> 3516

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 caatgtctac aagctcctat agcttccctt cttcccccat accttccatc aattatagct 180
 tcaatatgtg aaaaccagc tcttcaacca tataggcttc aacaagcaat cgcagcaagc 240
 aacatacctt tatcgccctt gttgtttcaa caatcgccag ccttatcttt ggtgcagtca 300
 ttggtacaaa ccatcagggc acaacagctg cagcaactcg tgctacctct gatcaaccaa 360

gtagctctgg caaacctttc tncctactct cagcaacaac aatttcttcc att 413

<210> 3517

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A11

<400> 3517

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ggtttggtc cttatgctcc ttggtctttc tgcaagtgt gctacagcca ccattatacc 120
gccatgctcg catgctccta tagcttctct tctttcccg cacctcttac cagcggggca 180
cttcagcatg tgaaaaccca attacttaac cactacagga tccaacaggc aatctcagat 240
ggcatcttaa ctttatgacc ctgatcatc caacaatcat caaccctatt acaacagata 300
cctttggtgc atttattggc aaaaacatc agagcacaac tactacaaca acttgtgcta 360
gcaaaccttg ctgcctactc tcaacaacag cagtttcttc cattcaacca actaagttca 420
ttgaact 427

<210> 3518

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A12

<400> 3518

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cttcaaccct acaggatcca acatgcaatc acagctggca tcttaccttt atcacccttg 240
ttcctacaac aatcatgatg cctattacat caattaccta tagagcattt attggcacia 300
aacatcaggg cacaacaact acaacaacta gcgctagcaa acctttgttg atactctcag 360
caacatcaga ttcatgcatt caaccaacta gctgcattga actctgcttc tt 412

<210> 3519
 <211> 417
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A2

<400> 3519

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ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc cagctacctg 180
ctgcctaccc ccagcaatth ctccattca accaactggc agcattgaac tctcctgctt 240
atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc cctgctacct 300
tcttgataca accacagttg ttgccgttct accagcacgc tgcgcctaac gctggcacc 360
tcttacaact gcaacaattg ctgccattca accaacttgc tttgacaaac ccagcag 417
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<210> 3520
 <211> 392
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A3

<400> 3520

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tgtgcctctt tgcgcttctt gccctttttg tgagcgcaac agatgcgtgc attattccac 120
aatgctcact tgctcctagt gccattattc cacagttcct cctccagtt acttcaatgg 180
gcttcgaaca cccagctgtg caagcctaca ggctacaaca agcgcttgcg gtgagcgtct 240
tacaacaacc aattgcccac ttacaacagc tatccttggc acatctaacc atacaaacca 300
tcgcaacgca acagcaacag caattgctac cagcactgag ccaactagct gtggagaacc 360
ctgtcgacta cttgcaacag cagctgcttg ca 392
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<210> 3521
 <211> 447
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A4

<400> 3521

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tttaccacaa tgctcacaag ctactatagc ttcccttctt ccccggtacc tctcaccaac 180
cagcgtcttc ggtatgtgaa aacccaattc ttcaacccta caggatcaa caggcaatcg 240
cagctggcat cttaccttta tcacccttgt tgcttcaaca atcatcagcc ctattacagc 300
agataccttt ggtgcattta ttggcacata acatcatgac acaacaacta caacaacttg 360
tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttcattc aaccaactag 420
ctgcattgaa ctctgcttct tatttgc 447

<210> 3522

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A5

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tgcatcacat cttgttcccta caaactcat gatccctatt acagcagtta cctttggcgc 180
atattattgta aaaaaacatg atggcacaac aactacgaca acttgtgcta gcaaacttg 240
ctgctactc tcagcaacaa cagtttatta cattcaacca actagctgca ttgaactgtg 300
cttcttatta gcaacacat caactacat tcagccagct atctgctgcc taccctcagc 360
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<210> 3523

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A6

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agcatcaaac atcagcgggg gctatcctac ctggccgcc tgtaagagct gctacagcga 120
ccattattca accatgctga caagctgcta taggtttcct atttgcaaca gccatatcaa 180
caacggagtc tgctgcatgt gaaataccaa tagttaaacc ctacatgata caacatgcca 240
tcatagatcg catctgacca ttatcagcat cagcaattac acacttataa gcagtatgac 300
agcatgaacc ttggtagcat ctatagacac acacaatcag ggcacatcta ctacaacact 360
ttgcgttacg aaagcttgct gttaatctga gaaacaggat gtcattcaat caaac 415

<210> 3524

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A7

<400> 3524

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agacgcgcaa ggaggtcaag acggagggca aggccggcca gctgaagaag gtcgagaagg 180
accccgcat cccaacgag tgggccttca aggagcaaga gctgatggcg ctcaacgcc 240
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ggaagacgaa gctaggatag ctcgaggatg aggaaatagc taatttggca tctgcagctt 360
ccgcgcatgg cagtgagttt gcagcagatg atgcagcata cgataaagct gctttaacag 420
tggc 424

<210> 3525

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A8

<400> 3525

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ccccaacaa tttcttccat tcaaccaact ggcagcattg aactctcctg cttatttaca 180

gcagcaacaa ctactaccat tcagccagct agctgggtgtg agccctgcta ccttcttgac 240
acaaccacag ttgttgccgt tctaccatca cgctgcgcct aacgctggca ccctcttaca 300
actgcaacaa ttgctgccat tcaaccaact tgctttgaca aacctagcag tggttctacca 360
acatcccatc attgggtgggtg ccctctttta gatttcttat gagttatagt tcaataataa 420
agttt 425

<210> 3526

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A9

<400> 3526

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gtataaagca gttacctgtt aatgtaaaat ccatcagggga gagcccgaat tctgggctct 180
ttccttttacc aaacctccat gtatagccaa aacatgctgc cattgtcaga ggatccatca 240
ttgatgatgg cattctcaat ggcacgtcgt gcagctgcgg tgccgcttct attagtcaat 300
ggcacctata agtcaactgt tagcacatac cttgattctg ctattctgca acatcagcta 360
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<210> 3527

<211> 393

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-012-Q1-K1-B1

<400> 3527

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cgggaggggtg ttgctcgtgg ccctcgtctc cctggctctc gctgcgagcg ccacctccac 120
gcatacaagc ggcgggtgcg gctgccagcc accgccgccg gttcatctac cgccgccggt 180
gcatctgcca cctccggttc acctgccacc tgcggtgcat atcccaccgc cgggtccacct 240

gcccgcgcgc gtccacctgc caccgtcggc ccatgtgccg ncgcgcgttc atctgccgtc 300
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atgcccgtgc caacagacgc atccaaaccc gtg 393

<210> 3528
<211> 388
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-B10
<400> 3528

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ctcacttgct cctagttcca ttattccaca gttcctccca ccagttactt caatggcctt 180
cgaacaccca gctgtgcaag cctataggct acaacaagcg attgcggcga gcgtcttaca 240
acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaacaatac aaaccatcgc 300
aacgcaacag caacaacagt tcctaccagc actgagccac ctagccatgg tgaaccctgt 360
cgctacttg caacagcagc tgcttgca 388

<210> 3529
<211> 275
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-012-Q1-K1-B11
<400> 3529

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aagcaccagc gtctaaaaca tgatcatagg accatacaag atgcttttgg acagcgaaca 180
gactgaaatc ctcatattat atggacctgt caagattaca aactgcttac gatcttacc 240
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<210> 3530
<211> 445
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-B12

<400> 3530

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ccatgcttga cactgcagct gccggagacg atctacctat aactgcgtc taacgcatac 180
accgtcttac aactgtatga cgtggtagca ttaaaccaac tcgttgcgac acaccactca 240
gcgacctaac atcaacccat gacagcaggt gccatcctgc agagtgcctca tcagctatac 300
tccgataatg aaccagtgcg tataatgcct gaggcaccac agcaatccgg aagtgaatcc 360
ctacggctcg ccacagtgcc aggcgctgca gcagcagtcg tgccaccaga tcaggcaggt 420
ggagccgctg cagcgggtacc aggcg 445

<210> 3531

<211> 354

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-B2

<400> 3531

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gctgacgcag gacgaagatg gcggacgacg agggcgctcac ggggagaagg agctcgtacg 180
tgaccaata acccagcact acggatgacg gagcaagctg tactaggacc tgccagcgac 240
gccgatgatg gcgctcaacc acatctctcg cctgtgcgaa tccgtagacg cgtccgtccg 300
gttctacgtg aaggcgctcg gctctgcgct catccaggcg ccgcaagcgc tcga 354

<210> 3532

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-012-Q1-K1-A1

<400> 3532

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 gtgcgctgcc gccggcccgg ccgcgcgcga gaactgcggc tgccagccta acttctgctg 180
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 cccgtgccgc tcgggcggcg gcggcgggcg cggcgaggcg ggaggcagtg gcggtgcgaa 300
 cgtggctaac gtggtcagcg acgcgttctt caacggcatc aagaaccagg ccgggagcgg 360
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<210> 3533

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G12

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 gccgggtccat gtgccgcgc cggttcatct gccgcgcga ccatgccact accctactca 240
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 aagcccgtgc cagctgcagg gaacctgcgg cgttggcagc accccgatcc tgggccagtg 360
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<210> 3534

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G2

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gagcgcctta caacaaccaa ttgccaatt gcaacaacaa tccttggcac atctaaccct 300
aaaaccatt gcaacgcaac aacaacaaca acagtttctg ccatcactga gccacctagc 360
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<210> 3535

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G3

<400> 3535

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tcattattcc acagtgtca cttgtccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg 240
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ccctacaaac cattgcaacg caacaacaac aacaacaaca gtttctgcca tctactgagcc 360
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tt 422

<210> 3536

<211> 157

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G4

<400> 3536

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gccaccgtag cttacactat ttgcttgaaa ctgttac 157

<210> 3537

<211> 170

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G5

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tagatatcca catcctacgt gtgatcaacg tccttctact aatctgcca aattgggttca 120
caattcaaat aagctgcacg gctcctcgtg ccattatctc acaactcctc 170

<210> 3538

<211> 164

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G6

<400> 3538

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agctaatacag aggcttcttg gtatcccttc cggaagcta aacttaatgc gaggcgctga 120
ctgccagcat catcctatac agagcacaag ggcacagat tata 164

<210> 3539

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G7

<400> 3539

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ccaagatatt agcctcctt gcgcttcttg cccttttagt gagcgcaaca aatgcgttca 120
ttattccaca gtgctcactt gtccttagtg ccagtattcc acagttcctc ccaccagtta 180
cttcaatggg cttegaacat ccagccgtgc aagcctacag gctacaacta gcgcttgctg 240
cgagcgctt acaacaacca attgcccaat tgcaacaaca atccttgga catctaacc 300
tacaaccat tgcaacgcaa caacaacaac aacagtttct gccatcactg agccacctag 360
ccgtggtgaa ccctgtcacc tacttgcaac agcagctgct tgcaccaac ccacttgctc 420
tggcgaacgt agctgca 437

<210> 3540
 <211> 413
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G9

<400> 3540

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 cggggtagcc gtcgtcgccg aggagcgcgg caagcacgcc accggcctcg ccactgggga 360
 ctacggccgc catctcgccg tttgccggcg ccggtggctg gttcaaaagg aaa 413

<210> 3541
 <211> 386
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H10

<400> 3541

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 acaagctcct atagcttccc ttcttcccc atacctctca ccagcgggtgt cttcaatgtg 180
 tgaaacccca attgttcaac cctacaggat ccaacaggca atcgcaacag gcattctacc 240
 attatcacc cttgttctcc aacaaccgtc agccctatta cagcagttac ctttgggtcca 300
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<210> 3542
 <211> 339
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H11

<400> 3542

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cgcgctgct ctacgatgcc gtcttgcaag acctagtacc gttcgggaga acggctgcga 180
aaactgcccc tttctagaga tggacggaga gcacgacaac gtcagctact gtactaccct 240
catcttcact ggaactatct ctctgatgga cccattacg agctgtgcct tccgttggtt 300
gagaattggc aggatcattc ctgggtgcta tacacttgc 339

<210> 3543

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H12

<400> 3543

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tgcagcccgc accaccacca tctgctgcgg cgtcggcatc gcagacggcg tggccgctgg 120
attggccggg ggacggggcg tcgctcaatc ctccatcgct gccactata tcagtccagt 180
gtttggactg gaatgcgcac agtctgttac tttgatggca aaacgtatga attggttggg 240
cagagccgcc aacgaagtac catgggtaag gatgtgctgg acaatgaaag cttttgtctt 300
ataacaatag gatacaagaa gcttgcaagt ggttttgtga aggcttttgt gaatcacttg 360
aatcattagt tcttttaaga atggttttgt atagcgttag caaatatgtg taaaacacat 420
taagatgt 428

<210> 3544

<211> 265

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H2

<400> 3544

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cgaccaagat attttccctc cttatgctcc ttgctctttc tacatgtgtt gctaacgcga 120
 caattttccc tcaatgctca caagctccta tagcttcctt tcttccccca taccttccat 180
 caattatagc ttcaatatgt gaaaaccag ctcttcaacc atataggctt caacaagcaa 240
 tcgcagcaag caacatacct ttatc 265

<210> 3545
 <211> 421
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-H3
 <400> 3545

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 atcactccag gtctctgcgt acgaaaccgg ccagaagtat gacgccact tcgactattt 120
 ccacgacaga aacaacctga agctcggcgg ccagcgagtt gcgaccgtcc ttatgtacct 180
 cacagatgtc aagaaagggt gagagactgt atttccaaac gctgagggaa gccatttaca 240
 gtacaaggac gaaacttggc cggagtgttc aagatctggc ctggcagtga agccaaagaa 300
 aggagacgcg ctactgttct tcaacctcca cgtcaacgcc acagccgata caggcagtct 360
 ccacgggagc tgcccgggtga tcgagggcga gaaatgggtcc gcgacgaaat ggatccacgt 420
 c 421

<210> 3546
 <211> 419
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-H5
 <400> 3546

cccacgcgtc cgggggtcttc agaccattag ctttatctac tccagagcgc agaagaacct 60
 gatcgacacc atgaggggtgt tgctcgttgc cctcgctctc ctggctctcg ctgcgagcgc 120
 cacctccacg catacaagcg gcggctgcgg ctgccagcca ccgccgccgg ttcattctacc 180
 gccgccggtg catctgccac ctgcggttca cctgccacct ccggtgcac tcccaccgcc 240
 ggtccacctg ccgccgccgg tccacctgcc accgccggtc catgtgccgc cgccggttca 300

tctgccgacg gcaccatgcc actaccctac tcaaccgacc cggcctcagc ctcatcccca 360
gccacacca tgcccgtgcc aacagccgca tccaagcccg tgccagctgc agggaaacct 419

<210> 3547
<211> 192
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H6

<400> 3547

agggagacca acaagcaaca tagaatgtgg aattcagcag catcaataga acaacggtga 60
ctgccaagat attatcccta cttatgctcc ttgctctttc tacatgcgtt gctaacgcga 120
caattctacc tcaatgctca caagctgcta tagcttcctt tattcaccca tacctttcaa 180
taattatagc tt 192

<210> 3548
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H7

<400> 3548

ctgggtcttc agaccattag ctctatctac tccagagcgc agaagaacct gatcgacacc 60
atgaggggtgt tggtcggtgc cctcgctctc ctggtctctg ctgagagcgc cacctacacg 120
catacaagcg gcggctgcgg ctgccagcca ccggcgacgg ttcattctacc gccgccggcg 180
catctgccac ctgcggctca cctgccacct ccggtgcata tgccaccgcc ggtccacctg 240
ccgccgccgg tccacctgcc accgtcggtc catgtgccgc cgtcggttca tctgccgacg 300
acaccatgcc actaccctac tcaaccgacc cggcctcagc ctcatcccca gccacacca 360
tgcccgtgcc aacagccgca tgcaagcccg tgccagctgc aaggaacctg cggcgatggc 420
agcaccocga tcct 434

<210> 3549
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-H8

<400> 3549

caactagcaa catagaaagc acaatagtgt accaacaatg gcagccaaaa tattttgcct 60
ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcgggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcatcttacc 240
tttatcacc ttgttcctcc aacaatcatc agccctatta caacagttac ctttggtgca 300
ttaattggca caaaacatca gggcacaaca actacaaca cttgtgctag caaaccttgc 360
tgcctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat tgaac 415

<210> 3550

<211> 410

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G11

<400> 3550

cttcaacaag caatcgcagc aagcaacata cctttatcgc ccttggtggt tcaacaagcg 60
ccagccctat ctttggtgca gtcattggta caaaccatca gggcacaaca gctgcagcaa 120
ctcgtgctac ctctgatcaa ccaagtagct ctggcaaacc ttctcccta ctctcagcaa 180
caacaatttc ttccattcaa ccaactgtct aactgaacc ctgctgctta ttgagcaa 240
caactattac catttagcca gctagctact gcctactctc agcaacaaca acttcttcca 300
tttaaccaat tggccgcact gaacccgct gcttatttgc agcagcaaat actactacca 360
tttagccagc tagctgcagc aaaccgtgct tccttcttga cacagcaaca 410

<210> 3551

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F2

<400> 3551

gggcacagca gctgcagcaa ctcgtgctac ctgtgatcaa ccaagtagct ctggcagacc 60

tttctcccta ctctcagcaa caacaatttc ttccattcaa ccaactgtct acactgaacc 120
 ctgctgctta ttgagcagcaa caactattac cattcagcca gctagctact gcctactctc 180
 agcaacaaca acttcttcca ttttaaccaat tggccgcact gaaccccgct gcttatttgc 240
 agcagcaaact actactacca tttagccagc tagctgcagc aaaccgtgct tccttcttga 300
 cacagcaaca gttgctgcct ttctaccagc agtttgccgc taaccccgca accctcttac 360
 aactacaaca attggtgccc ttgtgccaac ttgctttgac agaccgagcg gtcttctacc 420
 aacaacaca 429

<210> 3552

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F4

<400> 3552

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 cttcttcccc cgtacctctc accagcgggtg tcttcgggtat gtgaaaaccc aattcttcaa 180
 ccctatagga tccaacaggc aatcgagctt ggcattctac ctttatcacc cttgttcctc 240
 caacaatcat cagccctatt acagcagtta cctttgggtgc atttattggc acaaaacatc 300
 agggcacaac aactacaaca acttgtgcta gcaaaccctg ctgcctactc tcagcaacaa 360
 cagttttctc cattcaacca actagctgca ttgaactctg cttcttattt gcaacaacaa 420
 caactaccat tca 433

<210> 3553

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F5

<400> 3553

cccacgcgtc cgcccacgcg tccggtaacg ccgtcgccgc cctacggctc agagctgggt 60
 cgtcattctc tccggcaacg agcaccctaa gatggtgggc cttcaaccag atcggttcct 120

gagcgcgctg acgagcatgt acgagcggag cacggagaag ggctccgtct gggtcacat 180
gaagcgatca actctcaagg gcaaggcaca gttgcggaag atggagaata aggggcagga 240
ggtagagcac aggtgcctcg tccgcgcctt caatggcaag aagaacatct ccacctcgg 300
ttctctaaag gagtacacaa agtttcaagc ttcatacgca acagttctta agggccatat 360
gcatgctctg aagaaaaggg agaggaaaga caagaagaag actgcagatg ctgagaaggc 420
aattg 425

<210> 3554

<211> 244

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F6

<400> 3554

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ttagagagag aggggatctg cgacgtgttt tgcctcgcgg cggcatgtct gtgtatccca 120
ttgaggttat gtacacaatt acaccgcggg cgggtgggtgt ctttttagtt aattatcaca 180
agtgacagta gaaaggaaca gattgtgatg aggttgaatg gatgaataaa tcgctagtcc 240
gccc 244

<210> 3555

<211> 398

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F7

<400> 3555

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cctcttcacg cactggaaag cttaaagtcc gacatcaatg gcgaagcatc atcctgatct 120
catcatgtgc cggaagcagc ctggcatcgc gattggccgc ctttgcgaga aatgtgatgg 180
caagtgtgtt gtctgcgact cgtacgtgcg cccatgtacg cttgtccggg tctgcgacga 240
gtgcaattat ggttccttcc agggaaggtg tgtgatctgt ggaggagtcg gcatctcaga 300
cgcttactac tgcaaggagt gcaccagca ggagaaggac cgggacgggt gccccaagat 360

cgtgaatctc cgaagcgcca agacggatct cttctatg

398

<210> 3556

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F8

<400> 3556

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cagtaccatc aggcattcatt catcttagta gtataggcac caaatcaa atgcaacatc 120

aattatctaa ctccaaaac catgaagctg gtgcttggtg ttcttgcttt cattgcttta 180

gtatcaagtg tttcttgtag acagacaggg ggctgcagct gtgggtcaaca acaaagccat 240

gagcagcaac atcatccaca acaacatcat ccacaaaaac aacaacatca accaccacca 300

caacatcacc agcagcagca acaccaacaa caacaagttc acatgcaacc acaaaaacat 360

cagcaacaac aagaagttca tgttcaacat caacaacaac aaccgcagca ccaccaccaa 420

caacaacaac aactgcacca acaaca 446

<210> 3557

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-F9

<400> 3557

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tatgctgccc tagtgaacct gtcttcagac caaggcagca actcggtcgg ttgctcggac 180

ttcagcctcg agaacgactc caggaccctt gacataactt cgggtgcctgc gcccggttgcc 240

accttgggcg ccggttgggc gtctgtgttc gtccagaaca ccgtcggcca tgctgtggcg 300

tctcctgcga cggngaacac tgggtgtgat ctgcgcgagt tggagccgta tatgaatttc 360

ctgatggacg gtgggttcaga cgactcgatc agcactctct tgagctgtga tggatcccag 420

gacgtggt 428

<210> 3558
 <211> 264
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G1

<400> 3558

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 atgggttgagg tatcagcgct tccagaatga ccaacgagca tcagctagta tagcttcatt 120
 tatcagccga tccatctccg agcacagggtc accaccgtgc agcctagcca ccgtctaaca 180
 ccgagtcttc tctgttcttc tgcggcgaac aaagtcaatc catagccgtg ttgctgggtc 240
 tgattttttt tttccaacaa gatt 264

<210> 3559
 <211> 387
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G10

<400> 3559

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 gccttcaaaa tgtggagggc ggctccagt gttgtgacct cagatcaacg ttctcaaggc 120
 tcaaacaatc aactggagg tagcagcatc aggaataatc cagtgcagaa caagctgatg 180
 aacggcgaag atccaatcaa caataaccac gctcaaaccg caggccttgg cgtgaggctt 240
 gctactagct cttcctcgag agatccttca ccatcagacg aagacatgga cggagaagta 300
 gagattctgg ggttcaagat gcctaccgag gaaagagtga ggaaaagaaa ggaatccaat 360
 agagaatcag ccagacgctc gagatac 387

<210> 3560
 <211> 441
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G2

<400> 3560

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cgtgaaggag atgagagacg tcctagagaa catgatcgta cagcagaaat gcataatgtg 120
gattcagata atgacaaaga taaggaacat gtatcaagaa aaagggttcag ccgccccaaa 180
ggtcgtgata gcagagattt atcaagttcc agtgatggtc ttcaaatga tggaaaacat 240
cagttggata aaactattca gatgcgcgag gaccttgaaa atgagggttaa ccagattaag 300
gataaaatat ctgggaaaga acagcacatt gcagatttgc agaagaaagc tcagaaacta 360
gaggatgaac tggttgccgc acggaaagta tcttcagaac gacagttggc ggttacagac 420
ctgtacaaac atttcctcca a 441

<210> 3561

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G3

<400> 3561

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atcctctagc cattgagagg tggcaggcac aggcgatgga ggctgataaa gaattctaca 120
gtcggatacg catacctgat gaagatgatt caagtagtca gaagcacaca tgccgtagtt 180
ctgcttcaca ggggtgccgat agcaaacctg catctgagcg gcaatcaaga ggtgtggagc 240
atataaaaca ggggtctcgtg aactttatag cctcgtctgt gatgccatta tatagaggaa 300
aaaagatcga ccgagagggg tacaaaacaa tcatgcgcaa atctgttaac aagatcattg 360
atacatgctc agaaggagag aaatcaatga ctactcttga gtttcttgat gataaaagga 420
aaattaaga 429

<210> 3562

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G4

<400> 3562

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tttcactcac caaggaggag gagaaagaac tcaaggaaac cttgcaggat atccttgggg 120
 aaaacaaaac tatcttgggtt gaacagaaga ttgactacag catcatggga ggattagtga 180
 ttgaattcgg gcagaagggtg cttgatatact caatcaggaa cagggcgaag caaatggagg 240
 cgttcttgag gcaaccactt gacttctaac agccttttgg ataaaagaag catcatcgga 300
 atgcagaggc tgtcctgttg aagggtttcc tgtgtctgca attttaatct ggccttttga 360
 ataaaatgtt tcctctaaca agtgaagggc actgttttta ttgtctctg ggccacagat 420
 gcctgctgaa c 431

<210> 3563

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G5

<400> 3563

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 cttccggcat ccaccaggcg tcaatacggc gcagcgagca gcgagcagca agtcaccgag 120
 cagccgagcg accgccgagc acagggcacc accgagcagc cgagccaccg ccgagcaccg 180
 agtcttctct gttcttctgc ggccaacaag gtcaatccag ggccgtgggtg cgggtgctgg 240
 tttttttttt ccaacaagtt tatgttggtc gtcgaccgc tgcagcaatg aagatacaga 300
 aagcaaatgc aggtgtcctt acaaacttcg aagtccttga cttcttgcgg tcaagagggtg 360
 ccaaaattga cccaatggga tgtttggggg ctgttgctgt atcagagtgt aaggtgtatg 420
 agtatatc 428

<210> 3564

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-G6

<400> 3564

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ctcaccttcg tcgggaccgc tctacccgac gcctccaccc accgagcagg aggtggagag 120
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 ggggtaccctg ggggttctggt cccaattggg gtgcacaatt atttctgctg gaattttggc 240
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 tgggtattgct gctgctttta tttcagtctt ctgggtcattt gggtacatcc gtctctctga 360
 aaggcttaga aaaacatcca aagaacctgc taaggctcct ncacgtgctg atgttgntaa 420
 gagcc 425

<210> 3565

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-G7

<400> 3565

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 cttcgccaac atcacgcggg ggtccatgag cgcgccattg ttcaacaccc gttcgttcaa 120
 gatcgcctac gtgcctaacg gcaagggcta cgccgagatc gtgtgctcgc accgtcagtc 180
 tcaagacggc gagagcgagc gcgagcgcta caagcgcagg tggagcgatg tagaacatgt 240
 agaatcggtt gtcgagcact atatggcctc gctgctgac gcacatctat cgagcgcggc 300
 tgatcgaccg cacggcgtag gtggcgatca tgcgcaaata tgttgacaag atcattgata 360
 catgctcaga atgagagata tcaatgacta ctcttgagtt tcttggtgat aaaaggaaaa 420
 tt 422

<210> 3566

<211> 419

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-F12

<400> 3566

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 gccaccacca gcgactgcgg caatggcggg cacggtgacg gtcccggggt cgtcgacccc 120

ctccacgccg ctgctcaagg acgagctcga catcgtgatc cgcacgatcc gcaacctcga 180
 cttcctggag atgtggcggc ccttcttcca gccctaccac ctcatcatcg tgcaggacgg 240
 cgacccgacc aagaccatca aggtgcccga gggcttcgac tacgagctct acaaccgcaa 300
 cgacatcaac cgcacctcgc ggcccaaggc ctncctgcac tcattcaagg actccgcctg 360
 ccgctgcttc ggctacatgg tctccaagaa gaagtacatc tacaccatcg acgacgact 419

<210> 3567

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-E1

<400> 3567

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 cattccctcc cctggccggt gcccgcgct cgcggtcgag caccggaacc ggagccccgc 120
 cggaatcga gggttgcctc cgctcgcgc cctcctcccg agactcctag cggcaggaat 180
 taggacgagg gtaacaggcg acagaggctg cgaaggacgc cccttcgtca aatgcgccgg 240
 cgaccgatcc gtggaggagc agccggagca cgcaggaggt gaagtagcaa agttattttc 300
 agacgcgggc cttgtatgta ttgcaagttt gatatctcca tataggagag accgtgaatc 360
 ttgccgtgca ttgttatcgg atggtagctn tattgaagtt ttcttgaata tgtccttgga 420
 attatgtg 428

<210> 3568

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E10

<400> 3568

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 ttgtactgc caccttgcgc gcccttcttc cctgccgagc ccacactgac cttcatctct 120
 tcaaggatgg catccgtccc ctctgggagg atcctgcaaa ccagaatggg ggcacgtgga 180

taattagatt caaaaaggca gtttcaggtc gattttggga ggatacggtg ctagtggttag 240
taggcgacca gcttgagtat agcgatgatg tctgtggtgt cgagcttagt gtccggtaca 300
acgaagacat tctgagcgtc tggaaccgga acgcatcata ccatcacgct gcgatggcat 360
cgaaggatac tatcaagagg ca 382

<210> 3569
<211> 410
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-030-Q1-K1-E11

<400> 3569

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ttcatctagc ccgctcgcgg tgggcaatgc acctacgtac ctacaacaac agttgctgca 120
acaaattgta ccagctctga ctcagctagc tgcggcaaac cctgctgcct acttacaaca 180
gttgctacca ttcaaccaac tggctgtgtc aaactctgct gcgtacctac aacagcgaca 240
acagttactt aatccattgc cagtggctaa cccattgggc gctacctatc tgcacatca 300
acaacaattg ctgccataca accaggctctn tttgatgaac cctgccttag cacaacccat 360
cgttggacgt gacatctact agatccatat gacatgtact cgacaatggt 410

<210> 3570
<211> 430
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E12

<400> 3570

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agaagaaatc aaatggccta ttcaccttga ggtgtcaagg gcaactgcaa gggccaaagc 120
tgccgtggaa gctgctgggtg ggacagtaag gctggtgtac tacaacaaac ttggattacg 180
gacactcctg aaacctgagt ggtttgagaa gaagggccga ctgttacc aa aagcagcaag 240
gcctacaccc aagcagcgag ataaggctga tagcattggc cgtctgcccg tgccgacaaa 300
gccactcccc ttcacggcat acgagctgga gtttgcagcc caacgtgagg ctgccgcgct 360

gactgcatta agatgagaac acgttggcaa cacctttatt tttatgaaag catgcgccac 420
 tggatgtgta 430

<210> 3571

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E2

<400> 3571

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 gtctgcatgg taacgtcttc agaataaaac caccgatgtg cttttcgaag gacgatgcag 180
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 tgaaactgaa aggcagatga tttaatgggc atgctccccg ggtgggtatgt tgggtgggtt 360
 atggtgaagt ttaatagtcc cccttccccg aataaattga tgaaagggga cagaacgtct 420
 tgcccagc 428

<210> 3572

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E3

<400> 3572

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 tccacaatgc tcacttgctc caagttccat tattacacag ttccctccac cagttacttc 180
 aatgggcttc gaacaccag ctgtgcaagc ctataggcta caacaagcaa ttgcggcgag 240
 cgtcttacia caaccaatcc ccagttgca acaacaatcc ttggcacatc taacaatata 300
 aaccatcgca acgcaacagc aacaacaatt cctaccagca ctgagccacc tagccatggc 360
 gaaccctgcc gtctacttgc aacagcagtt gcttgcacat aaccacttg ctctggcaaa 420

cg

422

<210> 3573
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E4

<400> 3573

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agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt cggtatgtga 180
aaacccaatt cttcaaccct ataggatcca acaggcaatc gcagctggca tcttaccttt 240
atcacccttg ttctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
attggcacaa aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacaacagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
tta 423

<210> 3574
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E5

<400> 3574

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cagaaggatc ctcccacctc ttgcagcgca ggcctgttg ccgaagatat gttctactgg 180
caggcgacga ttatggggcc atcagatagc ccatacgtg gtggcgtatt tttggctact 240
attcactttc caccggacta ccattcaaa ccaccgaagg ttgcattcaa gacgaaggtt 300
taccatccga atatcaacag caacgggagc atctgtcttg atatcttgaa ggagcaatgg 360
agccctgcac tgacagtttc taaggctctc ctctcaattt gttcccttct gacggacca 420
aac 423

<210> 3575
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-E6

 <400> 3575

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caattctcac aagctcctat agcttacctt ctaccgcat acctatcacc aacggagact  180
tcaatgtgtg aaacctcaac tgttcaaccc tacaggatcc aacaggcatt ctcatcatgc  240
atcttaccat tatcaccctt gttccttcaa caaccgtcag ccctattaca gcagttacct  300
ttggtccatt tgggtggcaca aaacatcatg ctacaacgac tacaacaact tgtgctagca  360
aaccatgctg catactctca tcaacatcaa tttcttccat tcaaccaact ggctgcattg  420
aactc                                           425
  
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<210> 3576
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-E7

 <400> 3576

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cgggaacggg acaggacccc aaaatctcag atccttcctg cccgcccgcc cgtgcccgtc  120
gacgcgtcgt tcttgccggc cgcgcctcac ctccgccctc tctctctcca gggggatcgg  180
atacgccaca ggctgcgcga tgggtgctgtg ggtcttcggc tacggctccc tcattctgaa  240
ccccggcttc gacttcgacg acaaaatcct cggtttcatc aagggtaca agcgcaccta  300
taatctcgct tgcattgacc acagaggcac accggagcat ccggcgagga cctgcacgct  360
tgaaaccgac gacgaggcca tatgctgggg aattgcatat tgtgtcaggg gtggtccaga  420
aaaag                                           425
  
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<210> 3577
 <211> 390
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E8

<400> 3577

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tgaccacgga accacacccc cagagaaacc attctacata ttctcatata cactcatgag   60
cacatagcgc taggcgccat accaaccatg agcgacctgt tatectacat ttccaaggtc  120
atgtgcatca aggcaagatc ggaggcaaca caagccggcg aggacagcgg ctgcccagcg  180
gacgagtgcc gcgtctgcct gtccaagatt cggctcggcg aggctaccgg ccgactgccg  240
tgtcgccatg tgttccaccg ggactgcgtc gaccgggtggc tctcgtcctg caagcgaacc  300
tgtccgctgt gccgagttta tgtggccgat gggaacaagc agccgggtggc ggcaaagcac  360
accagccgtg aagcacatgc actcgccgac                                     390
  
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<210> 3578
 <211> 430
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-E9

<400> 3578

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cggacgcgtg gggtcaaaaa cacaccatag cgaagcgcac tagcaacgac ctagcgcgat   60
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gttcattatt ccacagtgtc cacaagctcc tatagcttcc cttcttcccc catacctctc  180
accagcgggtg tcttcaatgt gtgaaaaccc aattgttcaa ccctacagga tccaacaggc  240
aatcgcaaca ggcattcttac cattatcacc cttgttcctc caacaaccgt cagccctatt  300
acagcagtta cctttgggtc atttgggtggc acaaaacatc agggcacaac aactacaaca  360
acttgtgcta gcaaaccctg ctgcatactc tcagcaacat cagttttctc cattcaacca  420
actggctgca                                     430
  
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<210> 3579
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F1

<400> 3579

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cccttgctct cctggcgctc gctgcgagcg ccgcctccag tacaagcggc ggctgtggct 120
gccagacacc accgtttcat ctaccgcctc cgttctatat gccgcctccg ttctatctgc 180
cgccgcagca gcagccgcag ccatggcaat accccactca accaccgcag ctaagcccgt 240
gccagcagtt cggatcctgc ggcgtcggca gcgtcggcag cccgttcctg ggccagtgcg 300
tcgagttcct gaggcaccag tgcagcccgg cggcgacgcc ctacggctcg ccacagtgcc 360
aggcgctgca gcagcagtcg tgccaccaga tcaggcaggt ggagccgctg caccggtacc 420
aggcgacata c 431

<210> 3580

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F10

<400> 3580

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ctttccctcc ttatgctcct tgctctttct gcatgtgttg ctaacgcgac aattttccct 120
caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aatgatagct 180
tcagtatgtg aaaaccagc tcttcaacc tataggtctc aacaagcaat cgcagcaagc 240
aacatacctt tatcaccctt gtttcaacaa tcgccagccc tatctttggg gcagtcattg 300
gtacaaacca tcaaggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactatcag caacaacaat ttcttccatt caaccaacta 420
tcta 424

<210> 3581

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-F11

<400> 3581

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tcatcgttct cgtcgtgtgc ctggctctgt cagctgccag cgcctctgca atgcagatgc 120
cctgccccctg cgcggtgctg cagggcttgt acggcgctgg cgccggcctg acgactatga 180
tgggcgcccgg cgggctgtac ccctacgcgg agtacctgag gcagccgcag tgcagcccg 240
tggctgcggc gccctactac gccgggtgtg ggcagacgag cgccatgttc cagccgctcc 300
ggcaacagtg ctgccagcag cagatgagga tgatggacgt gcagtcgcgc tcgcaacatc 360
tgcagatgat gatgcatctt gagcgtgccg ctgccgccag c 401

<210> 3582

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-D9

<400> 3582

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aagaccacag gcccgtaaa gagcgcgacc gaggtgtggg accacgagga ctgagcggag 120
ctgccgtgcc gccggatccc tccactccac ctgatgaaac cagaataaag gataccgacg 180
cacctgtcag tcacctccct cccgtgcctt gcgagagcgg cagcctctcg cacagggaag 240
atgctctgtg tctgagagca tgcagcctcg cacgagaaag atgcagaagg agtgtgtgtg 300
gcgcgcaata cactcctgta ctgtacgata gactgaataa taataaagaa gaaaacgcag 360
cagtttgccg ttgcgttttc ctttgtgct 389

<210> 3583

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C5

<400> 3583

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agcgggtgtc toggatatgtg aaaaccaat tttcaaccc tacaggatcc aacaggcaat 120

cgcagctggc atcttacctt tatcacccctt gttcctccaa caatcatcag ccctattaca 180
acagttacct ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact 240
tgtgctagca aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact 300
aggttcattg aactctgctt cttatttgca acaacaacaa ctaccattca gccagctacc 360
tgctgcctac ccacagcaat ttcttccatt caaccaacta gcagcattga actctcctgc 420
ttat 424

<210> 3584

<211> 421

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-C7

<400> 3584

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tccacaatgc tcacttgctc cgagtgccat tattccacag ttctctcctc cagttacttc 180
aatgggcttc gaacacccag ctgtgcaagc ctataggcta caacaagcgc ttgcgggcgag 240
cgtcttagaa caaccaattg cccaattaca acaacaatcc ttggcacatc taaccataca 300
aaccatcgca acgcagcagc aacaagcact gaaccaccta gccgtgggtga accctatcgc 360
ctacttgcaa caacagctgc ttgcatccaa cccacttgct nntgcaaacg tagctgcata 420
c 421

<210> 3585

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C8

<400> 3585

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atccttcgcc gctccggcag cagctccagc tccagcagct cgtcatctga agacgacggc 180
atgggtgggc gccggaagaa gggcctgaag gagaagatca aggagaaaat gccaggaggc 240
cacagggaag gccagggccca ggcgacggcc accggtgctg acggcgggac aggggtacgtg 300
gctggggccga cgaccggagg cccccacgag aagaaggggtg tgggtggagaa gatcaaggag 360
aagatcccag gcggccacaa ggactacgac cagcatcagc acaccaccgc ggcaaccggt 420
ggcgg 425

<210> 3586

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C9

<400> 3586

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cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt tcattattcc acaatgctca 120
cttgtctcaa gttccattat tacacagtgc ctcccaccag ttacttcaat gggcttcgaa 180
caccagctg tgcaagccta taggctacaa caagcaattg cggcgagcgt cttacaacaa 240
ccaatttccc agttgcaaca acaatccttg gcacatctaa caatacaaac catcgcaacg 300
caacagcaac aacaattcct accagcactg agccacctag ccatggtgaa ccctgccgcc 360
tacttgcaac agcagttgct tgcacaaac ccacttgctc tggcaaactg agttgcaaac 420
cagccacaac 430

<210> 3587

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-D1

<400> 3587

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gcggcgcccc agctgggtgac tctcgggcta tcaactcctc gcgctgtcgc cggccccggc 120
gccgcgcaga actgcggctg ccagccaaac gtatgctgca gcaagtttgg ctactgcggc 180

acgaccgacg agtactgcgg cgacgggtgc cagtcggggc cgtgccgctc gggcgggcggc 240
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ggcatcaaga gccaggccgg gagcggtgc gagggcaaga acttctacac ccggagcgcg 360
ttcctgagcg ccgtcaaggc gtaccagggc ttcgcccattg gcgggtcgca ggtgcagggc 420
aagcg 425

<210> 3588

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-D10

<400> 3588

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ctaccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
tcattattcc acagtgtctca cttgtccta gtgccattat tccacagttc cttccaccag 180
ttacttcaat gggcttcgaa catgcagccg tgcaagccta caggctacaa ctacgcttg 240
cggctagcgc cttacaacaa ccaattgtcc aattgcaaca acaatccttg acacatctaa 300
ccctacaaac cattgcaacg cagcatcatc gacaacaaca gtttctgcca tctactgagcc 360
acctagccgt ggtgaaccct gtcacctact tgcaacagca gct 403

<210> 3589

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-D11

<400> 3589

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgttgttt caacaatcgc cagccctatc tttggtgcag 300

tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
 caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
 caactgtc 428

<210> 3590
 <211> 355
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-030-Q1-K1-D12
 <400> 3590

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 gtgctgatcg ttgcccttgc tctcctggcg ctcgctgcga gcgccgctc cagtacaagc 120
 ggcggctgtg gctgccagac accaccgttt catctaccgc ctccgttcta tatgccgcct 180
 ccgttctatc tgccgcgcga gcagcagccg cagccatggc aataccccac tcaaccaccg 240
 cagctaagcc cgtgccagca gttcggatcc tgcggcgctg gcagcgctcg cagcccgttc 300
 ctggggccagt gcgtcgagtt cctgaggcac cagtgaagc cggcggcgac gccct 355

<210> 3591
 <211> 432
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-030-Q1-K1-D2
 <400> 3591

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 ggctccttat gtccttgggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat 120
 gctcgcaagc tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 180
 tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240
 tacctttatc acccttgttc ctccaacaat catcagccct attacaacag ttacctttgg 300
 tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc 360
 ttgctgccta ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact 420
 ctgcttctta tt 432

<210> 3592
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-D3

<400> 3592

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gcaatgctcg caagctccta tagcttccct tcttcccccg tacctctcac cagcgggtgc 120
ttcgggtatgt gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg 180
catcttacct ttatcacctt tgttctctca acaatcatca gccctattac atcagttacc 240
tttggtgcat ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 300
aaaccttgct gcctactctc agcaacagca gtttcttcca ttcaaccaac tagctgcatt 360
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ccccccagc 428
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<210> 3593
 <211> 432
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-030-Q1-K1-D4

<400> 3593

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cagccagcta gctactgcct actctcagca acaacaactt cttccattta accaattggc 180
cgcactgaac cccgctgctt atttgcagca gcaaatacta ctaccattta gccagctagc 240
tgcagcaaac cgtgcttccct tcttgacaca gcaacagttg ctgcctttct accagcagtt 300
tgcgggctaac cccgcaaccc tcttacaact acaacaattg ttgccctttg tccaacttgc 360
tttgacagac cgagcggcct nctaccaaca acacatcatt ggtgggtgcc tcttttagat 420
tgcttattag tt 432
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<210> 3594
 <211> 429
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-030-Q1-K1-D6

<400> 3594

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 gcattcggag aggagagagg aggcctccga gcttgccccc ttcgaccgga ccaagaagaa 180
 gaaaaagaag aagggtgtca tccaagaacc ttctgatgaa gtggacaagc ttgcagagaa 240
 gacagaaaca ctggcagtcg cagaacccgc tgaacttaac ttcactggaa tgaagaagaa 300
 aaagaagaag ccggtggatc ttgattcaac tcttgatgag cttggagatg gggaggacac 360
 tcaagatgat caagctgtag aggaacaagg ngaaggcatt gtgctgggaa gtgtccctac 420
 ataccccttg 429

<210> 3595
 <211> 422
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-D7

<400> 3595

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 gctccttggt ctttctgcaa gtgttgctac cgcaaccatt ttcccacaat gctcacaagc 120
 tcctatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaac 180
 cccaattggt caaccctaca ggatccaaca agcaatcgca acaggcatct taccattatc 240
 acccttggtc ctgcaacaac cgtcagccct attacagcag ttacctttgg tccatttggt 300
 ggcacaaaac atcaaggcac aacaactaca acaacttggg ctagcaaacc ctgctgcata 360
 ctctcaacaa catcaagttc ttccattcaa ccaactggct gcattgaact ctgcttgcta 420
 tt 422

<210> 3596

<211> 372
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-030-Q1-K1-D8
 <400> 3596

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 aagcacgcca gggacatcga gacggccgcc tccttctacc acgccgactt gggctacacc 120
 gagcggcgcc tctaccagcg ccacatgtac gcggagctgg agcgcgtcgc gagcaccatg 180
 ccatagacgc cgcattacca tcggtagacg gacgagctga cggatccggc tcagctatct 240
 gactcatact acagccttag gagctccgtg gatgtctgct taggcaacgc atgcttgact 300
 cgtgaggcaa gaccgccgaa gacgtaaatt caaccgcgga gcactcgcta cgagaagcgc 360
 catgtataac aa 372

<210> 3597
 <211> 423
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-030-Q1-K1-C4
 <400> 3597

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 gcctccttat gtccttgggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat 120
 gctcgcaagc tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 180
 tatgtgaaaa cccaattctt caaccctaca ggcaccaaca ggcaatcaca gctggcatct 240
 tacctttatc acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg 300
 tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
 ttgctgccta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 420
 ctg 423

<210> 3598
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E9

<400> 3598

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ttgcagacaa catagaggca aggaaaacga gtcagacagc catatagctg acttgagaag 120
gaattatgga caaggcacat tgagacaagg atgccattac attgcaatta acatattcag 180
tttgattatt gtcctactga tgttttggtg tcttaaattg accctgtag aagttcaaaa 240
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ctcgcgaggc cacatgactg ttacttttgt ttcttcccct tttttttgta gaaaaaggtc 360
aaggctatct aaatgttgtc cggcaattgt tggagttgat ggaggttctg attcgtttgg 420
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<210> 3599

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F1

<400> 3599

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ctttgttcat tgatccctac taccaatgat gcacaccgtc tgctaacatt cagtcattct 180
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atcggcacga cacctccacc aacgctggct agccaacctt gcgttctacc tttcgcagca 360
gcagttaccc atgtggcaca attcggcaca ttacatcagg gcactgcagc tacatcagct 420
cgggc 425

<210> 3600

<211> 401

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F10

<400> 3600

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caaccaactg tctacactga accctgctgc ttatttacia caacaacaac tactaccatt 180
cagccagcta gctactgcct actctcagca gcaacaattt cttccattta accaattggc 240
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tacaacaagc cccacttctt ttttgaaaca acaacaattg cttccgttct accagcagtt 360
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<210> 3601

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F11

<400> 3601

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ttcccttctt ccccgctacc tctcaccagc ggtgtcttgc gtatgtgaaa acccaattct 180
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catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct actctcagca 360
acagcagttt cttccattca accaactagc tgcattgaac tctgcttctt atttgcaaca 420
acaacaac 428

<210> 3602

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F12

<400> 3602

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ctgccgccgc agcagcagcc gcagccatgg caatacccca ctcaaccacc gcagctaagc 240
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tgcgtcgagt tcctgaggca ccagtgcagc ccggcgggca cgcctacgg ctgccacag 360
tgccaggcgc tgcagcagca gtgct 385

<210> 3603

<211> 313

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F2

<400> 3603

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cgttcattat tccacaatgc tcacttgctc ctagtgccat tataccacag ttctccgac 180
cagttacttc aatgggcttc gaacacctag ctgtgcaagc ctacaggcta caacaagcgc 240
ttgcggcgag cgtcttataa caaccaatta accaattgca acaacaatcc ttggcacatc 300
taaccatata aac 313

<210> 3604

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F3

<400> 3604

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aagagaggat caaggagatg ttcttcccca tctcttcttg aagatttctt ggggaaaccc 180
taggtggcta cactccagat catgtctagt acatttcttc ttcttcgatg aaggtgcttg 240
ttgctcatca aggggagtgga gaagtagcag cacatccacc ttactctca taaattgctg 300

cccagacaca gccatgattt aattagaaac ttcttgtcaa aggatgtttg tttttaacta 360
gtcgtgcgca ctgattaatt cagttcattg ttgttatggg tgtcttccca ttgctagcag 420
atta 424

<210> 3605
<211> 401
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-F4
<400> 3605

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agctgtgcaa gcctataggc tacaacaagc aattgcggcg agcgtcttac aacaaccaat 180
ttcccagttg caacaacaat ccttggcaca tctaacaata caaaccatcg caacgcaaca 240
gcaacaacaa ttcctaccag cactgagcca cctagccatg gtgaaccctg ccgcctactt 300
gcaacagcag ttgcttgcac caaaccact tgcctctggca aacgtagttg caaaccagcc 360
acaacaacag gtggaacagt ttctgccagc gtcfaatcaa c 401

<210> 3606
<211> 421
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-F5
<400> 3606

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tcgccgagcc tgacaaggac gtcgccgaac gcgaggatga cgacgcgccg ccggcagccg 180
ccgcggccga ggagaggctg aaagcggact cgcagccgtc gtcggtcgtg aagtacgacc 240
tccctccgct gctgccgccg ccgccggaga tggttgacct gccgtgcac gacgtcgagg 300
agctggagtg ggtctccgct atcatggacg actcgtcttc cgagctgcag cccagggcgc 360
agccgaagcc ggccgctgct gtggtcgctg cgtctgcagc gcggccccct ctggcgcagc 420

a

421

<210> 3607
 <211> 427
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-011-Q1-K1-F7

 <400> 3607

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ccactgatgg gccgcactta ccagaagcat ctacgtacct catgcccttc aagctcaagt 180
atccggagac gaagctggat atgaacagga aacctacaa ggctggcggc gactctggct 240
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ttctacggct gacgatacgc atcggagcga tggatctgat attaccttgt caggtttgta 360
atatcattag ctgggtgtac cttcagcttt gaaaccttac ctgcgcttgg gcgatcaagt 420
catgaaa 427
  
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<210> 3608
 <211> 456
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-011-Q1-K1-F8

 <400> 3608

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gcgcttcttg ccccttttgt gagtgcaaca aatgcgttca ttattccaca atgctcactt 180
gctccgagtg ccattattcc acagttcctc cctccagtta cttcaatggg cttcgaacac 240
ccagctgtgc aagcctatag gctacaacaa gcgcttgctg cgagcgtctt agaacaacca 300
attgccaat tacaacaaca atccttggca catctaacca tacaacccat cgcaacgcag 360
cagcaacaag cactgagcca cctagccgtg gtgaacccta tcgcctactt gcaacaacag 420
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<210> 3609
 <211> 405
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-F9

<400> 3609

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gtgcaagcct acaggctaca acaagcgctt ggggcgagcg tcttacaaca accaattgcc   180
caattacaac aacaatcctt ggcacatcta accatacaaa ccatcgcaac gcaacagcaa   240
caacaatttc taccagcact gagccaacta gctgtggtga accctgtcgc ctacttgcaa   300
cagcagttgc ttgcatccaa cccacttgct ctggcaaaca tagttgcata ccaacaacaa   360
caacaattgc aacagtttct accagcgctc agtcaactag ccatg                       405
  
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<210> 3610
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G1

<400> 3610

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cgcacttccg agaagcatcg aggttcctca tgcccttcag gctcaagtgt ccggagagga   180
ggctgcagat gaagaggaaa ccctacaagg atggcggcga ctggggcgac cgtggcgaca   240
agatcaacga actaatcgag aagctgaact agaagcgag accttgccct ctccggctgt   300
cgttttgcgt tggagcgatg gatctgttat taccttgctg gttttgtaat agcattagct   360
gggtgtacct tcggctttga aaccttacct gcgcttgtgc gatcaggtca tgaaatagca   420
  
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 <211> 343
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-G10

<400> 3611

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aggctggcta gagggttccg cttccaccgg agcgacttag agattgtcag cttctacctc 180
accaacaagg tgctcaacac gcgcttcacc tgcgccgcca tcaccgaggc cgacctaaac 240
aagattgagc catgggacct tccgagcacg gcgaagatgg gcgagacaga gtggtacttc 300
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<210> 3612

<211> 403

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E8

<400> 3612

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ttttccaca atgtcacaa gctcctatag cttcccttct tccccgtac ctctcaccag 180
cgggtgtcttc ggtatgtgaa aaccaattc ttcaacccta taggatccaa caagcaatcc 240
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cagtaccctt ggggtgcatta atggcccaa acattaaggg cccaccacct ccaccacctg 360
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<210> 3613

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D2

<400> 3613

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 cctactcaac ccgcccggcc tcagcctcat cccagggcac acccatgccc gtgccaacag 360
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<210> 3614

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D3

<400> 3614

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 ctgcttattt ccagcagcaa atactactac catttgcca gctagctaca acaagcccgg 420
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<210> 3615

<211> 361

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D4

<400> 3615

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 ctcaaaagct cctatagctt tccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttt aaccctatag gatccaacag gcaatcgag ctggcatctt 240

acctttatca cccttgggtcc ttcaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
t 361

<210> 3616

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D6

<400> 3616

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ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc ttgctgccta 180
ctctcagcaa cagcagtttc ttccattcaa ccaactaggt tcattgaact ctgcttctta 240
tttgcaacaa caacaactac cattcagcca gctacctgct gcctaccccc agcaatttct 300
tccattcaac caactagcag cattgaactc tctgcttat ttacagcagc aacaactact 360
accattcagc cagctagctg gtgtgagccc tgctaccttc ttgacacaac cacag 415

<210> 3617

<211> 421

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-011-Q1-K1-D7

<400> 3617

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t

421

<210> 3618

<211> 175

<212> DNA

<213> Zea mays

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aaggttggct atctaacaat tataaccact attacaacag ttactatcag gagcatttat 120

tgtaacataa catcactggt acaactacta caacaacttg cactacaaaa acttg 175

<210> 3619

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E1

<400> 3619

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ctcacaagct cctatagctt cctttcttcc cccatacctc tcaccagcgg tgtcttcagt 180

atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt 240

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gcatttggtg gcacaaaaca tcaaggcaca acaactacaa caacttggtg taggaaacct 360

tgctgcctac tctcagcaac agcagtttct tccattcaac caactggctg cattgaactc 420

t 421

<210> 3620

<211> 394

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-011-Q1-K1-E10

<400> 3620

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ccgcanaggc tcctnctgca ttcccagtag ccagcaagt acctgtgagt aagacttctc 360
accctacaac agagtcaaac caaaccagc attc 394

<210> 3621

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E11

<400> 3621

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gtggcttgca tcagaggact accctttatt gctcgggtc 399

<210> 3622

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E12

<400> 3622

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gagcgcgccc cagcgcgggc gccgcgtgcc gtcgtgcacc tcatcggcga gcgcggcacg 180
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agccgtggtg gaggctggcg ggatccccgc cctggttgag gccatcgagg acggccctgc 300
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<210> 3623

<211> 312

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E2

<400> 3623

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tgagttatag ttcaataata aagttttttg tctgatgttt gtggcttccc agaaataaga 300
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<210> 3624

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E3

<400> 3624

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accggcgtga agagaatggg agggcatggc catgatgagc catactacat ccatgccaa 240
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ca 422

<210> 3625
<211> 275
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E4

<400> 3625

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tgctgtgctc ttgctacacc ggctgcgagc ttgactgcga cccttctaata ggggccaaagt 180
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<210> 3626
<211> 420
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E5

<400> 3626

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cagggagggc agccggcgtg cttgagaacc atgaggaggg gaggcgttac gccatgcatg 180
gcctcagaag ctttgtgcac gacaagacc ccgagatcat gccagctatc aacaagttct 240
ttactgaccc caagtgaagc aaagcagctt tggttggccg ctgatgacga tggttctgct 300
actagttgcc cttggggatt gtgtaccctt tttatggcaa ttcgatatgt gaatgagttc 360
gacggtcctt gtttgttctt cgtactcacc tgatcatgtg atttgatgca cttcagtgat 420

<210> 3627
<211> 434
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E6

<400> 3627

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agtgctcact tgctcctagt gccattattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgctt 240
tacaacaacc aattgcccaa ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
ttgcaacgca acaacaacaa caacaacagt ttctgccatc actgagccac ctagccgtgg 360
tgaaccctgt cacctacttg caacagcagc tgcttgcatc caaccactt gctctggcga 420
acgtagctgc atac 434

<210> 3628

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-E7

<400> 3628

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ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
agcttcagta tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgcagc 240
aagcaacata cctttatcgc ccttggtgtt tcaacaatca ccagccctat ctttggtgca 300
gtcattggta caaaccatca gggcacaaca gctgcagcaa ctcggtgtac ctgtgatcaa 360
ccaagtagct ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattc 418

<210> 3629

<211> 251

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D12

<400> 3629

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tatgtgccaa tgagacagct aacactacga tttttgcgca ttgatcacia tctcctaaaa 120
cgtatcttct tacacagtaa ctactaccat catagagact agcttgaaaa aaccaaactc 180
taaaatccta caaaatccaa ctaacattcg cacatgcaat cttacatgct tcaactatcg 240
aactccaaca a 251

<210> 3630

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B5

<400> 3630

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tatgtctcctt ggtctttctg caagtgttgc taccgcaacc attttccac aatgctcaca 120
agctcctata gcttcccttc tttccccata cctctcacca gcgggtgtctt caatgtgtga 180
aaccccaatt gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt 240
atcacccttg ttcctccaac aaccgtcagc cctattacag cagttacctt tgggtccattt 300
ggtggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
atactctcag caacatcagt ttcttccatt caaccaactg gctgcattga actctgct 418

<210> 3631

<211> 287

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B6

<400> 3631

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gacggccaaa ctaaacagct tccttatgct cctcgatcta accgcaactg ctactactca 120
aaccattagt ccactatggt cacaaaattc tatagattga attcttcttc catacctgta 180
acaagacaac tatcatatat gcgaaatcct gattgctcaa cctacaaga tcctacattc 240
aatcgaatca cgcataattaa cattatcacc catgttcttc caacaac 287

<210> 3632
 <211> 383
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B7

<400> 3632

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 ctaccaagat attatacgtg cttgcgcttc ttgcgctttt tgcgagcgca tcaaattgcgt 120
 tcattattcc acaatgctca cttgctccta gttacattat tccacagttt ctcccaccag 180
 atacttcaat ggccttcgaa caccagctg agcaagccta tacgctacaa catgcgattg 240
 ctgcgagcgt cttacaacaa ccaattgac c aattgcagca acaatgcttg gcacatctaa 300
 cactacacac catcgcaacg cagcagccac atcagttcct accagcactg aggcacctag 360
 ccatggtgaa ccctgacgac tac 383

<210> 3633
 <211> 262
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B8

<400> 3633

ccaactccat ccacgcctca cgcgtcccga gccatataaa gcacaatttt ctactttaca 60
 atcgcagtca aaatattatc cttcctgatg ctccttgctc tttctgtaaa tgctgctacc 120
 ctaaccattc ttccacaatg ctcaaaaact cctatagcat cctttcttcc tccatacctc 180
 tcaacaacgg tgactccact atgttcaaaa ccaattcttt aaccctacag catccaacac 240
 tcaataccag caagcatttt aa 262

<210> 3634
 <211> 412
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B9

<400> 3634

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gctggttggt ctttctgcaa gtgctgtac cgcaaccatt ttcccacaat gctcacaagc 120
tcctatagct tcctttcttc ccccatacct ctcaccagcg gtgtcttcag tatgtgaaaa 180
cccaattctt caaccctaca ggatccaaca ggcaatcgca gcaggcatct tacctttatc 240
acccttggtc ctccaacaac cgtcagccct attacagcag ttacctttgg tgcatttggt 300
ggcacaaaac atcaaggcac aacaactaca acaacttggt ctaggaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactggct gcattgaact ct 412

<210> 3635

<211> 425

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-011-Q1-K1-C1

<400> 3635

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cgcgccgggg gcgactgcgc gcgcggtcag tcagtcttcg gcgtgcgggg cgcgcgcgag 120
atctcctcag aggtagggga gaaaatcggt gagggtcggc gggcctgatg ggcggtgcgg 180
tctccggtgg cgcggcggtt ggggatgcgg cgggggcggc aacttaccg gtggttctca 240
acgtgtacga cctgacgccg gtcaacaact acctnactg gggcgggctt ggcatcttcc 300
actctgccgt cgaagttcat ggatcgaggt acagttttgg agcacatgat caccatcgca 360
gtggagtttt tgaggtggaa ccaaagagct gccaggggt catatacaga tgtacggttt 420
tcata 425

<210> 3636

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-C10

<400> 3636

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tatgtgtccc tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gacaattttc 120

cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgcagca 240
agcaacatac ctttatcacc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac 420
caact 425

<210> 3637
<211> 306
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-011-Q1-K1-C2
<400> 3637

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gtccttgggt ctttctgcaa gtgctgctac cgcaaccatt tcccacaat gtcacaagc 120
tcctatagct tcctttcttc ccccatacct tgttaccagc ggtgtcttca gtatgtgaaa 180
accaattct tcaaccctac aggatccaac aggcaatcgc agcaggcatc ttacctttat 240
cacccttggt cctacaacaa ccgtcagccc tattacagca gntaccttng gtgcatttgt 300
tggcac 306

<210> 3638
<211> 427
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-C3
<400> 3638

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tcattattcc acaatgctca cttgctccga gtgccattat tccacagttc ctcctccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta taggctacaa caagcgcttg 240

cggcgagcgt cttagaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaacg cagcagcaac aagcactgag ccacctagcc gtggtgaacc 360
ctatcgcccta cttgcaacaa cagctgcttg catccaaccc acttgctttg gcaaacgtag 420
ctgcata 427

<210> 3639
<211> 386
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-C4
<400> 3639

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cagaacaaca tccccttccc catgccgatg caattttcca tgctgcccga cttctgcttg 120
gacccggtgc cccctacta cccgtacccc aacgctggcg cggggatgcc gatgcttcct 180
atggcagcag ggataggtgg tggcgccggt gggctccacc tcaaccgcgc cgcctgttc 240
ggcaatccga tggccgcgcc ccaacccatg aacttctacc accagatggg cacggggact 300
gcttgcgctg gcggcttcga tgtttctgcy ccggaaagta agccgtcctc gatggtgtcg 360
cagaaggacg accaggctaa tggcgc 386

<210> 3640
<211> 281
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-C6
<400> 3640

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cgtggcccag cgctcggcg tgtacaccgc ccgggactac gcggacatcg tacagtgcct 120
tgtcaagcgg aggaagctgg agacactgga aagcgtgcta ctcagggagg gccgaaatgt 180
caaagactaa gtctgcagac ttacacggac catacggcaa tccgaggagg gatcttacgt 240
ctatcaccct atggactaca acaaccggga gacctattac a 281

<210> 3641

<211> 424
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-C7
 <400> 3641

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gtggactcgt cgacaccatc atcgaaggca agaccggggt ccacatgggc cgcctcagcg 120
tcgactgtaa cgtcgtggag ccggcggacg tcaagaaggt ggccaccaca ttgcagcgcg 180
ccatcaaggt ggtcggcacg ccggcgtacg aggagatggt gaggaactgc atgatccagg 240
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ccggcggcga gccaggggtc gaaagcgagg agatcgcgcc gctcgccaag gagaacgtgg 360
ccgcgccttg aagagtctcg cctgcagggc ccctgatctc gcgcgtgggtg caaagatgtt 420
ggga 424
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<210> 3642
 <211> 239
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-C8
 <400> 3642

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tgttgccagc agctcaggca ggtggagccg cagcaccggt accaggcgat ctteggcttg 180
gtccttcagt ccctcctgca gcagcagccg caaagcggcc aggtcgcggg gcttgtggc 239
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<210> 3643
 <211> 418
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-D1
 <400> 3643

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gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcggtatg 180
tgaaaacca attcttcaac cctacaggat ccaacaggca atcgagctg gcatcttacc 240
tttatcacc ttgttcctcc aacaatcatc agccctatta caacagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgctactct cagcaacagc agtttcttcc attcaaccaa ctaggttcat tgaactct 418

<210> 3644

<211> 170

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D10

<400> 3644

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taattactat gttcgtatac aaataaatac acccggcgta cgcggtgttc cttatatggt 120
ctaaaatgta gccagtaaat tttaaactac tttatttctt gaggctctat 170

<210> 3645

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-D11

<400> 3645

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aagatattag ccttccttgc gcttcttgcc cttttagtga ggcgaacaaa tgcgttcatt 120
attccacagt gtcacttgc tctagtgcc attattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgccggc 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa caacagtttc tgccatcact gagccaccta 360
gccgtgggtga accctgtcac ctacttgcaa cagcagctgc 400

<210> 3646

<211> 421
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-011-Q1-K1-B4

 <400> 3646

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ctattacagc agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta  180
caacaacttg tgctagcaaa ccttgctgcc tactctcagc aacagcagtt tcttccattc  240
aaccaactag ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc  300
cagctacctg ttgcctaccc ccaacaattt cttocattca accaactggc aacattgaac  360
tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc  420
c                                                                 421
  
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<210> 3647
 <211> 387
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-B11

 <400> 3647

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tccaggagtg gtcctgggac cggaagcgag tgccgcacga ctggcggaag cgcctcgacg  180
gtattcgcgc ccgcatcgtg ccagctttct cagccctgcc gcggaacctg caccatcac  240
tactcgacct cgatccagaa gaaattggct acctgaagc aaagaagata tacagcattc  300
tactagaatc gatcaccgag agtggttagc tatttggccg actgacggga tccgcgtgtg  360
aatgggagtc aattattaaa gctgacg                                     387
  
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<210> 3648
 <211> 384
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B12

<400> 3648

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ccagcattgg ctcggtgacc gcaagcgact gccgcacgac tgtcggaagc gcctcgacga 180
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cctacacctc gatccagaag aaattgtcta ccttgaatca aagaagatat acagcattct 300
cctacaatcc aacaccgaca gtcgtaacat atttgaccaa cttacggtat ccccatTTga 360
atgctagtca attattaaag ctta 384

<210> 3649

<211> 428

<212> DNA

<213> Zea mays

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<400> 3649

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gtcgcgcgcg ttcccgaag gctgcttcta ctccaacgcc ctccgagggc tcaagtgcta 180
cgagaacccc aagcacaagg tcaccgctgt ccccgccgac gaagaagaga tctgcggtgc 240
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caggcggagg cgatgcgatg atgatgcaga actttgtaca tgcgttggtg gatggtggtg 360
taacatagtg gctgccaaca agtcatgctc atgcaaaccg atgaatctat ctctgtatca 420
tcgatctc 428

<210> 3650

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B3

<400> 3650

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gactccgaca gttgggtgat acataccaaa tgcaataaac aaacctact ttttatttta 360
tgtttccagt taataataaa ccaggcctta gcttcttggg tgctcttctt tgggtggtgt 420
tagcttct 428

<210> 3651
<211> 390
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-030-Q1-K1-B5
<400> 3651

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gttccattcg tgctgctaata ccaagcggta gaggttgtgg tagatatcaa caaaaggaag 120
aagaagaaga gggggctttc ggtttcccg cgtgggggttc gtgtgtgtcc gatccgatca 180
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gcatctgatg tatcaaagat tgatactgct gctagttcaa ctaatgtaaa tacttcagtt 360
tggtgtgatg aattgcttca tgccttgtcc 390

<210> 3652
<211> 368
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-030-Q1-K1-B6
<400> 3652

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ccgcaaggct gcttctactc caacgccta ctagggctca agtgctacga gaaccccaag 180
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 gtggaagggt ctactgttct gactgcgctt cactgatcta tcatcatcag gcggaagcga 300
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 ggcaacaa 368

<210> 3653

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B7

<400> 3653

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 ctcgcaagct cctatagctt ccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
 atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgcag ctggcatctt 240
 acctttatca ccttgttcc tccaacaatc atcagcccta ttacaacagt tacctttgggt 300
 gcattttattg gcacataaca tcaaggcaca acaactacaa caacttggtc tagcaaacct 360
 tgctgcctac tctcagcaac agcagcttct tccattcaac caactagggtt cattgaactc 420
 tgcttct 427

<210> 3654

<211> 262

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B8

<400> 3654

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 aacctaatgc ggggatcacc acacactacc caacctccac tcctaacccc cttactacca 120
 ctatctaccc atccactcca tcacatacca acatctccta cattccaaaa tcatactaaa 180
 ccaccaaacc catatgaacc ctgccttcta ctttcaacac tacttcattg aataatccat 240

acttactttc atcaacatca tt

262

<210> 3655

<211> 431

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-B9

<400> 3655

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cattatgctc cttgggtctt ctgcaagtgc tgctacggcg agcattttcc cgcaatgctc 120
acaagctcct atagcttccc ttcttcccc atacctctca ccagcgatgt cttcagtatg 180
tgaaaatcca attcttctac cctacaggat ccaacaggca atcgagcag gcattcttacc 240
tttatcacc ttgttctctc aacaatcatc agccctatta cagcagttac ctttggtgca 300
tttattggca caaaacatca gggcacatca actactaaa ctctgtctag caaaccttgc 360
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acaacaacta c 431

<210> 3656

<211> 427

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-C1

<400> 3656

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attgcaacag ccatacttag tgcattctgta tctccaaaga atcgcgggac aacaactaca 180
acaacagttg ctaccaaaaa tcaatcaagt agttgcagcg aaccttgctg cttacctcca 240
gcaacaacag tttcttccat tcaatcaact agctgggggtg aaccttgcta tctacttgca 300
ggcacaacag ctactaccat ttaaccaact tgcggggagc ctttatgctt tcttactgca 360
acaacagctt ctgccattcc atctgcaagc tgtggcaaac attgntgctt tcttgagaca 420

acaacat

427

<210> 3657
<211> 426
<212> DNA
<213> Zea mays

<223> unsure at all n locations
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<400> 3657

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caattaatgt tgcaaaacct ccgaagggtt cgacagtggc tgttttcggt ttaggagccg 180
ttggtcttgc cgctgcagaa ggtgcaagga ttgctggagc gtcaaggatc attggtgtcg 240
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caaaagacca caacaagcca gtgcatgagg tacttgetga gatgaccaac ggangggctc 360
accgcagtgt ggaatgcact ggcaacatta atgctatgat ccaagctttc gaatgtgttc 420
atgatg 426

<210> 3658
<211> 429
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C11

<400> 3658

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ccaaaatatt ttgcctcctt atgctccttg gtctttctgc aagtgtgtct acggcgacca 120
ttttcccgca atgctcgcaa gctcctatag ctccctttct tccccgtac ctctcaccag 180
cgggtgtcttc ggtatgtgaa aaccaattc ttcaacccta caggatcaa caggcaatca 240
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agttaccttt ggtgcattta ttggcacaaa acatcagggc acaacaacta caacaacttg 360
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ctgcattga 429

<210> 3659
 <211> 63
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C12

<400> 3659

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gtg 63

<210> 3660
 <211> 422
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-C2

<400> 3660

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catcgacttc atcacctacc gccaggctcct acagttcata atcatactga atcgccctaac 180

cctgaggaac cgtggcttct acttgcaaaa gttgttgatg gcataagaga tacttaaatgt 240

catcaacgtc attaacgacc aggcactgca acagctgcac atgaccgtgc aagagggtcaa 300

gtacctaggc atggcgaaca cgtggcggct acctacaact acagcagctg ccgtcatcga 360

ggccgctacc tcgggtccaat gcacctacat agctgcagca actactgctg cagcagattg 420

ta 422

<210> 3661
 <211> 398
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B10

<400> 3661

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ctcaccagcg gtgtcttcaa tgtgtgaaac cccaattggt caaccctaca ggatccaaca 180
ggcaatcgca acaggcatct taccattatc acccttggtc ctccaacaac cgtcagccct 240
attacagcag ttacctttgg tccatttggg ggcacaaaac atcagggcac aacaactaca 300
acaacttggt ctagcaaacc ttgctgcata ctctcagcaa catcagtttc ttccattcaa 360
ccaactggct gcattgaact ctgctgctta tttgcaac 398

<210> 3662

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-H7

<400> 3662

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tatgccttct tactgcaaca acagcttctg ccattccatc tgcaagctgt ggcaaacatt 180
gttgccttct tgagacaaca acatttggtg ccattttacc cacaagttgt gggaaacatt 240
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ggtgccttct tacaacaaca acaattgcta ccatttagcc aacatgcttt gacgaatcct 360
accaccttta tgcaaccgcc caccattggg ggtgccatct tctagatttt ttatgattaa 420
tactgtnata attaagttct catgctgata 450

<210> 3663

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H9

<400> 3663

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accgtggagg gaaggccatc cgaccagctg ggcaggagaa acctcactga cagccccgta 180

tttgacggcc gtggccctga cgccagcctc gtggctcgcg tacagggagt cgctacccag 240
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acgctcgtea ccgaaggcgc gatgacggaa gggtcagacg agtggg'gcgat ctacggcgga 360
actggagtgt tcgcgatggc gagaggcgtc ataaggagaa cgtttcttgc cgacacgagc 420
ggcggga 427

<210> 3664

<211> 368

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A1

<400> 3664

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tacaagcagt ttgcggctaa ccccgcaacc ctcttacaac tacaacaatt gttgcccttt 180
gtccaacttg ctttgacaaa ccagcagcc tcctaccaac aacacatcat tgggtggtgcc 240
ctctttttaga ttgattatta gttgtaattc aataataaag ttttttgat gatgtatgtg 300
gccaaccaga aataagaagt tacatttcca gattctaattg tgaaaaaaaa tagatgaata 360
ctattatc 368

<210> 3665

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A11

<400> 3665

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ccagcggccg aaaggtggga agcaggtgcc cgtgccgaag ctgatcttcc acctggcgag 120
cgcgacatg gatttgcccc gggagaacta catcccgag gacacggaca ggggggtgat 180
gtgcctgatg atcaacggcg cggaggtcga catggtgctc ataggcaact tccagcagca 240
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cgacaagatg tgacgaactc atcacttgct agcttggtcg tacgtacgcg ctgcacgtgt 360
gcgtgtgtat gactgtatgc atgcttctac ggctctacat atgttgtag tgct 414

<210> 3666
<211> 429
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A2

<400> 3666

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gagggactcg tggccggagc tgggcgagga cagcagcctc ggcttctcgg ccaccagct 180
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tggaataccg tcgagatgaa cgagtaccgt gcatgtggat cccagcgtct tagggttgac 300
gactcttcgg tgctggcctc gtcgtatcat gtcctaaat tttcgaacga tatatgcctt 360
atgtaacgct atttctctca ttgttacaac accctttacc cgtttggaat tgtgttgaag 420
tggatggtc 429

<210> 3667
<211> 424
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A3

<400> 3667

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gctttagtat caagtgtttc ttgacacaga caggcggctg cagctgtggt caacaacaaa 120
gccatgagca gcaacatcat ccacaacaac atcatccaca aaaacaacag catcaaccac 180
caccacaaca tcaccagcag cagcaacacc aacaacaaca agttcacatg caaccacaaa 240
aacatcagca acaacaagaa gttcatgttc aacaactaca acaacaaccg cagcaccaac 300
aacaacaaca acatcaacag caccaacaac aacatcaatg tgaaggccaa caacaacatc 360
accaacaatc acaaggccat gtgcaacaac acgaacagag ccatgagcaa caccaaggac 420

<210> 3668
 <211> 445
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-030-Q1-K1-A4

 <400> 3668

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ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat 180
agcttcaata tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgagc 240
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gtcattggta caaaccatca gggcacaaca gctgcagcaa ctctgctac ctctgatcaa 360
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<210> 3669
 <211> 491
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-030-Q1-K1-A5

 <400> 3669

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taccgcaacc attnttccca caatgggctc acaagctcct atagncttcc cttcttcnc 180
ccataccctc tcacnncagc ggtgtcttca atggtgtgaa anccccaatn ntgttcaacc 240
ctacagngat ccaacaggcn aatcgcaacc aggcattctt acncattatc ancccttgn 300
tcctccaacc aaccgtcagn ccttattaca gcagntntac ctttggtcca tttnggtggc 360
acaaaaacat caagggcaca acaactacaa caacttgtgc tagcanaacc ttgctgcata 420
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atttgcaaca a

491

<210> 3670

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-A6

<400> 3670

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gcacaagagg ccgagactgg aaatatatgc gttagggttaa gagacaatgc tgacctggtc 180
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gcatcgagtt tctcgggtta ctgttctttg tctgtatgaa gctaaaagg tgtcttttat 360
gttattaatt acagatgcga agttaaatac tgccgctagt aaaaaaatat gcttgttgac 420
ta 422

<210> 3671

<211> 426

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-030-Q1-K1-A7

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gggcaggagt acgcgcaggt gaccggatg ctcggaacg ggcggtgcga ggccatctgc 180
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gactac

426

<210> 3672
<211> 423
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-030-Q1-K1-A9

<400> 3672

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gttgttacgg atgagtgtga tccatacttc gacccggctcg gttgcaagca tcctggatgc 180
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atggcagagg tctacaaaaa tggctctgta gaagttgctt tcacagttta cgaggatttc 360
gcacactaca natctggagt gtacaagcac atcaccggcg gcattatggg tggccatgcc 420
gtc 423

<210> 3673
<211> 363
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-030-Q1-K1-B1

<400> 3673

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aca 363

<210> 3674
<211> 468
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H6

<400> 3674

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caactgtcta cactgaaccc tgctgcttat ttgcagcaac aactatta 468

<210> 3675
<211> 454
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G12

<400> 3675

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<210> 3676
<211> 444

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-029-Q1-K1-G2
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<210> 3677
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 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-G3
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<210> 3678
 <211> 457
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-G4

<400> 3678

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<210> 3679

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G5

<400> 3679

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aactgcaaca attgctgcca ttcaaccaac ttgctttgac aaaccaaca gcattctacc 360
aacaacccat cattgggtggg gccctctttt agatttctta tgagttatag ttcaataata 420
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<210> 3680

<211> 453

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G6

<400> 3680

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<210> 3681

<211> 259

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G7

<400> 3681

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caaccgcgtc ccgagctgcc gctggtacgt gaccagccgg acctgcggga tggggccgcg 180
ccttcogtgg ccggagctga agaggagatg ctgccgggag ctggcggaca tcccggcgta 240
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<210> 3682

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G8

<400> 3682

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gaagaagggc acccaattca attgcccccg gttgctgac ggacatttca tttgctcaaa 180
cagaagttagg tccaagctcc tgttctaggt cttcctaacg acttcagcaa gggtttctgt 240

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<210> 3683

<211> 57

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G9

<400> 3683

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<210> 3684

<211> 126

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H1

<400> 3684

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caaatacctt tattctcata tcttgagtat tatgtcccca aaaggtcttt aaagctccaa 120

atacat 126

<210> 3685

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H10

<400> 3685

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccgcaatg 120

ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180

atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240

acctttatca cccttggtcc tccaacaatc atcagcccta ttacatcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaacaac aacaactacc a 451

<210> 3686

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H11

<400> 3686

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tgctcgcaag ctctatagc ttcccttctt ccccggtacc tctcaccagc ggtgtcttcg 180
gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcac agctggcatc 240
ttacctttat cacccttggt cctccaacaa tcatcagccc tattacatca gttacctttg 300
gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 360
cttgctgcct actctcagca acagcagttt cttccattca accaactagc tgcattgaac 420
tctgcttctt 430

<210> 3687

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-H12

<400> 3687

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tcccaactgc cttcgatccc ttcgctgagg ccaatgctgg ggactctggt gcggcagcag 120
ggtcaaagga ctacgttcac gtgcgcatcc agcagcgtaa tggtcgcaag agcctgacta 180
ccgtccaggg attgaagaag gagttcagct acagcaagat cctcaaagat ctcaagaaag 240
agttctgctg caatggtaca gtggtccagg acccagaact tggacaggtc attcagctcc 300

agggtgatca gaggaagaac gtctcgaatt tcctcgtcca ggccggcatt gtgaagaagg 360
 agcacatcaa gattcatggt ttctgagcaa ccgcncggtc catagcaaac caaccctgca 420
 tgcanggccca gcttattata tataatatct 450

<210> 3688
 <211> 443
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-H3
 <400> 3688

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 gcagcagtct cttccctcgc ttccgcgga ccagctcgga gaccgcggcc ttcgctggcg 180
 cgcggatcga ctggaaggag actccagagg cgcacgtgtt caaggccgac gtaccggggc 240
 tgaagaagga ggaggtcaag gtggaggtcg aggacggcaa cgtccttcag atcagcggcg 300
 agcgcaacaa ggagcaagag gagaagacgg acacctggca ccgtgtggag cggagcagcg 360
 ggaggttcct gcgcaggttc cgactggccg agaacgcaa gacggagcag atcacggggc 420
 gcatggagaa cggcgtgctt aca 443

<210> 3689
 <211> 451
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-H4
 <400> 3689

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 ctcagaaggg atactggcag tttaatatgg gtgatgtcct ggttgatgga aagtccactg 180
 ggttttgtgc tgggtggttg gcagcaatag cagattctgg aacttccttg cttgctggcc 240
 ccacagccat tattactgaa atcaacgaaa agatcgggtg tgctgggtgta gtcagccagg 300
 agtgcaagac tgttgtttct caatacggac aacagatcct agatcttctg ctagctgaga 360

cgcaaccagc gaagatctgt tctcagggtg gcctgtgcac ttttgatggc actcacgggtg 420
 ttagcactgg aattcgtagc gtaatggatg a 451

<210> 3690

<211> 289

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-H5

<400> 3690

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 agggttttgt ggaggggcga tggcggcggc tgatgtggag taccgttgct tcgtcggcgg 120
 gcttgccctgg gccaccagca acgagtcgct ggagaatgcc ttcgcctcct acggcgagat 180
 cctcgactcc aaggtcatca ccgaccggga gacggggagg tctcgcggct tcggcttcgt 240
 taccttcgcc ttcgagaact ccatgctcga cgctatcgag aacatgaac 289

<210> 3691

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G10

<400> 3691

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 tatccgtaaa gcatggaagc atccatctgc tgacagcctt ttagttgagg agatagattt 120
 gggagatggg aatgtgctgc aagttgttag tggctctgca aagtattgca gccagatga 180
 tcttactaat cggcatgttg tcttgatcac gaatgtgaag cctggaaagc tgcgagatgt 240
 aatgtctgct ggattgggcc tttgtgcttc aactgaagat catgctgctg tggagccttt 300
 gattcctcca gaaggagcca agattggaga acgcatttca tttgctgggt ttgatgggaa 360
 gcctgaagat gttctaaatc caaagaaaaa gcagctggac aagattaccc cgcattctcg 420
 taccgacgag aatggaattg caat 444

<210> 3692

<211> 380

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-A10
 <400> 3692

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 acagaaccag aactaccatg gttcacactt gacgtggccc aatatgacgc ctttttacgg 120
 cagcaccgaa agatgacaga gacccaacat gctatgatca aactaccaa cattaagcag 180
 catcgcaacg atgacgacga cgtttactca gagagcttat gctagatact gtaggaagaa 240
 actcactata cgagcacgca cgacatgcat aaccatcaac gagagaagaa ctatagcaca 300
 agcacacagt atcatgaggg catccacgtg aggagcgaca ctgactcaaa gtcttcgcca 360
 cacttatgct accactacga 380

<210> 3693
 <211> 423
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-A11
 <400> 3693

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 aggtactgtt actattgtta aaattagtca ttttagctat ccgcttctat ttcaccgtgc 120
 ttgcagggtt gctatgagga aaaacaaatt tatgggctca aacaaagtgt gatagtgaaa 180
 gtcattttgc ttccagctta agaaccaagc caagaaaaca gatatcaact gtgacgccac 240
 actcaaaagc ttgtttggtg agagggataa ggttgggatg ctggagatct ctaagctttt 300
 gagccgtggc ttcccgaata tctccaagct tttgtggtcc atggagccag ggatggctct 360
 ttggtaaaag acttcgttgt ggatggcctc ttttatggtc catgttaagt cccaagctcc 420
 act 423

<210> 3694
 <211> 425
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-A2

<400> 3694

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gatgcttgca ttgttcgctc tcctagctct ttgtgcaagc gccactagtg cgacccatat 120
tccagggcac ttgccaccag tcatgccatt ggggtaccatg aacccatgca tgcagtactg 180
catgatgcaa caggggcttg ccagcttgat ggcgtgtccg tccctgatgc tgcagcaact 240
gttggcctta ccgcttcaga cgatgccagt gatgatgcca cagatgatga cgcctaacat 300
gatgtcacca ttgatgatgc cgagcatgat gtcaccaatg gtcttgccga gcatgatgtc 360
gcaaagtatg atgccacaat gtcactgcga cgccgtctcg cagattatgc tgcaacagca 420
gttac 425

<210> 3695

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-A3

<400> 3695

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tccttatgct ccttggtctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcattcttac 240
ctttatcacc cttgttcctc caacaatcat cagccctatt acatcagtta cctttggtgc 300
atattattggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccttg 360
ctgcctactc tcagcaacag cagtttcttc cattcaacca actagctgca ttgaactct 419

<210> 3696

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-A4

<400> 3696

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ggctagctag gtggctctcg aacgaagatg ttggcgggtgt tcagcgggca ggtgggtggag 120
 gtgccggcgg agctgggtggc ggccgggcagc cggacgccgt cgcccaagac gaaggcgctcg 180
 cagctgggtgg ggcgcttctt ggccgctctc gagccggccg tgtccgtgca gctcggcgac 240
 cacggccacc tcgcctactc ccacaccaac caggcgctcc tccgccccag gtcgttcgcg 300
 gcgaaggacg aggtgttctg cctgttcgag ggggtgctgg acaacctggg tcgtctgagc 360
 cagcagcacg ggctgtcaag caagggcgcc aacgaggtgc tcctcgatcat cgaggcctac 420
 a 421

<210> 3697
 <211> 379
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-A5
 <400> 3697

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 aatatttagc ctacttatgc tccttgggtct ttctgcaagt gctgctacgg agaccatttt 120
 cccacaatgc tgacaagctc ctatagctgt ctttcttaca ccgtacctct aaccagcggt 180
 gtcttcggta tgtgaaaacc caatacttca accctatgcg atccaacagg caatcgcagc 240
 tggcatctta cttttatcac ccttgttctt ccaacaatca tcagacctct tacagcagct 300
 accttgggtg cattttattgg cacaatacat gagggcacia catctacaac aactggagct 360
 agcaaacctt gctgcctac 379

<210> 3698
 <211> 425
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-011-Q1-K1-A7
 <400> 3698

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 gctccttggg atttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gtcacaagc 120
 tcctatagct tcctttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180

cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcattttatt 300
 ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgc 425

<210> 3699

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-A8

<400> 3699

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 ccaagatatt ttccatcctt atgctccttg ctctttctgc atgtgttgct aacgcgacca 120
 tttttcctca atactcacia gctcctatag ctgcccttct taccatac cttccatcaa 180
 tgaccgcttc agtttgggaa aaccagccc ttcaacccta caggctcaa caagcaatcg 240
 caacaagcaa cttaccttta tcaccctgt tctttcaaca atcgacagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcaaggcac aacagctgca acaactcgtg ctaccagtga 360
 tcaaccaagt agctctggca aacctttctc cctactctca gcaacaacaa tttct 415

<210> 3700

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-A9

<400> 3700

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 acaatgctca caagctccta tagcttacct tctttcccca tacctctcac cagcggagtc 180
 ttcaatgtgt gaaaacccaa ttgttcaacc ctacaggatc caacaggcaa tcgcaacagg 240
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tttgggtccat ttgggtggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 360
aaacettgct gcatactctc agcaacatca gttttcttcca ttcaaccaac tggctgcatt 420
gaactct 427

<210> 3701
<211> 430
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-011-Q1-K1-B1
<400> 3701

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tttgacgtag gtgcaagtgc cgagtcctgc agcggacttg ccgcccttgc ccttgccctt 120
gcccttgccct cccttgccgc cgccgtcgtc gccgccagag gaggccggccg cctgcttgcc 180
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atcggtattac acaggccaaa accctacttc caagtaagat ttggctcaga tactaccacc 300
gacgacgacg agtcgacgac gacgggagga ccacgaccac aaagatagat atctggacgc 360
gacgcacgag ggccttgatg tagaaggcca tatacgcccg atgggcccgg ctcgtctagc 420
cagatacttt 430

<210> 3702
<211> 404
<212> DNA
<213> Zea mays
<223> unsure at all n locations
<223> Clone ID: LIB3061-011-Q1-K1-B10
<400> 3702

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tgcgcggggc tgcagggctt gtacggcgct ggcgccggcc tgacgacgat gatgggcgcc 180
ggcgggctgt acccctacgc ggagtacctg aggcagccgc agtgcagccc gctggcgggc 240
gcgccctact acgcggggtg tgggcagacg agcgccatgt accagccgct ccggcaacag 300

tgctgccagc agcagatgag gatgatggac gtgcagtccg tcgcgcagca gctgcagatg 360
atgatgcagc ttgagcgtgc cgctgccgnc agcagcagcc tgta 404

<210> 3703

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B11

<400> 3703

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gaagggtatta gtgttttgctg tcgaacaact tatgatgata atgctattac aaatgcgggt 120
gagatatttta atacctctag tggcgccgtt cacttcatgg catcaaataa cgactctggt 180
gtgagatact atgacatgga gagattccag ctattcaagc attttcagtt tgaatggcca 240
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gatggtctac ttattgatgc aaactctgga aagacagttc attccataaa aggacatcgg 360
gactactcat ttgcatcggc ttggagccct gatgggcgaa catttgctac cggcaaccaa 420
gacaagaca 429

<210> 3704

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-011-Q1-K1-B12

<400> 3704

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tccttgaaga tcatcagttc atcatcctat agtaagctga atgatgaaag aaaaccctg 120
tacattacat ggaaggcaga ccggctattg gctccattgc tccaatgtct gctttggctg 180
ccttgccctg atggaccgga tgcagtgagg aatccagccg aacgacagtt ttgaaggata 240
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cctttgctcg ttagggctga taacataatg actcattaga aaatcatgc 409

<210> 3705
 <211> 244
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-011-Q1-K1-B2

 <400> 3705

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 ggcatccaga atattcagct accttatgct gcgcgggctt actgtaggtg tctgatctca 120
 gaaacattat ctcacaatgt tcacacgatt atatggattg aattctgctc ccatacctct 180
 cacaaaacga gtattatatg tgcgaaatcc tgattgctac accctacaag atccaacatg 240
 caat 244

<210> 3706
 <211> 403
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-011-Q1-K1-A1

 <400> 3706

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 tccagtacaa gcggcgggctg tggctgccag acaccaccgt ttcactctacc gcctccgttc 180
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 actcaaccac cgcagctaag cccgtgccag cagttcggat cctgcgggct cggcagcgtc 300
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 acgccctacg gctcgccaca gtgccaggcg ctgcagcagc agt 403

<210> 3707
 <211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-010-Q1-K1-G9

 <400> 3707

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gtgctcaaga aggtggagcc taatgctcac aagatagtgg aacatcgag gaagtatgag 180
aggttgagaa aagagagga ggaaaagaga gcgcagcgtg atcggctttg tcaacgtgca 240
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ggaggtgcat ctcccagagg ctttctgga gggatgcctg gtggtggttt ccctagaggg 360
atgccccggg gatgtttcct cgggggcggc atgcctgggg gtttacctgg gggttgcatg 420
ccttg 425

<210> 3708
<211> 294
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-010-Q1-K1-H10
<400> 3708

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aaccttacag gatccaacaa gcaatcgcaa cacgcatctt acctttatca cccttggttc 180
tccaacaacc gtcagcccta ttacagcaat tacctttgat gcatttggtg ccacaaaaca 240
tcaaagcaca acaactacaa caacttggtc taagaaacct tgctgcctac tctc 294

<210> 3709
<211> 444
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-010-Q1-K1-H11
<400> 3709

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gtgctcaatt gctcctagtg ccagtattcc acagttcctc ccaccagtta cttcaatggg 180
cttcgaacat ccagccgtgc aagcctacag gctacaacta gcgcttgagg cgagcgcctt 240

acaacaacca attgcccatt tgcaacaaca atccttggca catctaacc tacaaccat 300
 tgcaacgcaa caacaacaac aacagtttct gccatcactg agccacctag ccgtggtgaa 360
 cctgtgcacc tacttgcaac agcagctgct tgcattccaac ccacttgctc tggcgaacgt 420
 agctgcatac cagcaacaac aaca 444

<210> 3710

<211> 299

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-010-Q1-K1-H12

<400> 3710

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 gttgccctcg ctctcctggc tctcgtgagc agcgccacct ccacgcatac aagcggcgagc 120
 tgcgggtgcc agccaccgcc gccggttcac ctaccgcgcg cggtgcatct gccacctccg 180
 gttcacctgc cacctccggt gcattctcca ccgcgggtcc acctgccgcc gccggtccac 240
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<210> 3711

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-H9

<400> 3711

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 cagccaagat ttttgccatg cttgccctcc ttgctctttc agcaagcggt gctaccgcga 120
 ctattattcc acaatgctca caacaatacc tctctccggt gacagccgcg agatttgaat 180
 acccaactat acaatcctac aggttacaag aggccatcgc agcaagcatc ttacggtcgt 240
 tagcattgac cgtccaacaa ccatatgcc tattgcaaca accatcctta atgaatctat 300
 atctccaaag aatcgagca caacaactac aacaacagtt gttccaaca atcaatcaag 360
 tagttgcagc gaaccttgct gttaccttc agcaacaaca atttcttcca ttcaatcaac 420
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<210> 3712
 <211> 445
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-010-Q1-K1-E9

 <400> 3712

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 gctccttggt ctttctgcaa gtgctgctac ggcgaccatt ttcccgcaat gctcgcaagc 120
 tcctatagct tcccttcttc ccccgctacct ctcaccagcg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg tgcatttatt 300
 ggacanaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
 tttgcaacaa caacaactac cattc 445

<210> 3713
 <211> 430
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-010-Q1-K1-F10

 <400> 3713

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 cttcttgccc tttttgtgag cgcaacaaat gcgttcatta ttccacaatg ctcacttgct 120
 cctagtgcc aatttccaca gttctctcca ccagttactt caatgggctt cgaacaccta 180
 gctgtgcaag ccaacatgca acaacaagcg cttgcggcga gcgtcttaca acaaccaatt 240
 gcccaattgc aacaacaatc cttgccacat ctaacaatac aagccatcac aacgcaacag 300
 caacaacagt tcctaccagc actgagccac ctagccatgg tgaaccctgc cgnctacttg 360
 caagagcagc tgcttgcatc caaccactt gctctggcga acgtagtttg caaccagcaa 420
 caacaacagc 430

<210> 3714
 <211> 445
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-010-Q1-K1-F11
 <400> 3714

gggaagctgc accttgggat gccctttgca caaggtgcct ttgggaagct gtgacagggg 60
 aacatataat gggatggatg ttgctattaa gcttttggag cgacctgagg ctgaccctga 120
 gaaagctcaa ctgttagagc agcagtttgt ccaagaagtt atgatgcttg caacactgag 180
 gcacccgaat attgtcaagt tcattgggtgc atgcaggaag ccattgggtt ggtgtattgt 240
 gacagagtat gcaaaggggtg gatctcttaa gaatttcttg agcaagaagc agaacaggtc 300
 tgttccgctg aagtggcagt caagcaggca ttggatgttg cacgcggcat ggcctatgtc 360
 catggccttg ggttcattca cagagatctt aagtcggaca acctcctgat ttctgggtgat 420
 aagtccatta agattgccga ctttg 445

<210> 3715
 <211> 321
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-010-Q1-K1-F12
 <400> 3715

agaaagcaca atagtgtacc aacaatggca gccaaaatat tttgcttctt tatgtctcgt 60
 ggtctttctg caagtgttgc taccgcaacc attttccac aatgttcaca agctcctata 120
 gcttcccttc ttccccata cctctcacca gcggtgtctt caatgtgtga aaccccaatt 180
 gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt atcacccttg 240
 ttctccaac aaccgtcagc cctattacag cangttacct ttgtccattt ggtggcacia 300
 aacatcaggg cacaacaact a 321

<210> 3716
 <211> 367
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-010-Q1-K1-G10

<400> 3716

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gcctccttat gctccttggt ctttctgcaa gtgctgctac ggcgaccatt tccccgcaat 120
gctcgcaagc tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg 180
tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcaca gctggcatct 240
tacctttatc acccttggtc ctccaacaat catcagccct attacatcag ttacctttgg 300
tgcatttatt ggcacaaaac atcanggcac aacaactacc accacctggg gctagcaaac 360
cttgctg 367

<210> 3717

<211> 459

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-010-Q1-K1-G11

<400> 3717

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cctccttatg ctccttggtc tttctgcaag tgctgctacg ggcgaccattt tccccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggg 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca cccttggttc tncaacaatc atcagcccta ttacatcagg tacccttggg 300
tgcattnaatt ggcacaaaaa catcagggcc caccacctcc accaacttgt gctagcaaac 360
cttgctgcct actttcagca acagcagttc tttccattca accaactagc tgcattgaac 420
tctgcttctt atttgcaaca acaacaacta ccattcagc 459

<210> 3718

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-G12

<400> 3718

cggacgcgtg ggttcagaaa cacaccattc gaagcacatt atcaacaacc gaacaacgat 60
ggctaccaag atattatccc tccttgcgct tcttgcgctt tttgcgagcg caacaaatgc 120
gttcattatt ccacaatgct cacttgctcc aagttccatt attacacagt tccttcacc 180
agttacttca atgggctttg aacaccagc tgtgcaagcc tataggctac aacaagcaat 240
tgctgctagc gtcttacaac aaccaattta tcagttgcaa caactatcct tggcacatct 300
aacaatacaa accatctgaa cgcagcatca acaacaatac ttaccactac tgaaccacct 360
atccatggtg aaccttgacg ccttgcaaca gtag 394

<210> 3719

<211> 344

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E6

<400> 3719

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cgcgccgtga aggagacgac ggggatcgtc ggccttgagg tggcgcccaa cgcgcgggag 120
gttctcatcg ggctctacac gcgtacgctc aaggagatcg aggcggtccc caaagacgag 180
ggctaccgca aggcggttga gtccttcacc aatcaccgcc tccagatctg ccaggaggag 240
gacgactgga agcgcatcga ggaccgaatc ggatgcgggc aagtcgagga gctcatcgag 300
gaggccgagg acgagctcaa gctcatcgcc aaaatgattg aatg 344

<210> 3720

<211> 199

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E7

<400> 3720

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gatgggtaaa caccgccgag gttctcatcg ctctctacac gcgtacgctc aaggagatcg 120

aggcgcgtccc caaagaccat ggctacctaa tagtcogtta tttccttcac caatctccga 180
ctgcatactct accatgagg 199

<210> 3721

<211> 451

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E8

<400> 3721

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ccaacaggca atcgcaacag gcattcttacc attatcacc ttgttctctc aacaaccgtc 120
agccctatta cagcagttac ctttgggtcca tttgggtggca caaaacatca gggcacaaca 180
actacaacaa cttgtgctag caaaccttgc tgcatactct cagcaacatc agtttcttcc 240
attcaaccaa ctggctgcat tgaactctgc tgcttatttg caacaacaat taccattcag 300
ccagctaggt gcttgctacc cccaacaatt tctttcattc aaccaactag ccacattgaa 360
ctcttggtgct tatttacagc agcaacaact actaccattc agccagctag ctgatgtgag 420
ccctgctgcc ttcttgacac aacaacagtt g 451

<210> 3722

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E9

<400> 3722

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gtatcaagtg tttcttgtac acagacaggc ggctgcagct gtggtcaaca acaaagccat 120
gagcagcaac atcatccaca acaacatcat ccacaaaaac aacaacatca accaccacca 180
caacatcacc agcagcagca acaccaacaa caacaagttc acatgcaacc aaaaaaacat 240
cagcaacaac aagaagttca tgttcaacaa caacaacaac aaccgcagca ccaacaacaa 300
caacaacaac aacagcacca acaacaacat caatgtgaag gccacaaca acatcaccaa 360
caatcacaag gccatgtgca acaacacgaa cagagccatg agcaacacca aagacagaac 420

catgagcaac aacattaaca acaattt

447

<210> 3723

<211> 288

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F1

<400> 3723

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ttgctgcctt tctaccagca gtttgcggct aaccccgcaa ccctcttaca actacaacaa 120

ttgttgccct ttgtccaact tgctttgaca gaccgagcgg cctcctacca acaacacatc 180

attggtggtg ccctctttta gattgcttat tagttgtaat tcaataataa agtttttttg 240

atgatgtatg tggccaacca gaaataagaa gttacatttc cagatttt 288

<210> 3724

<211> 450

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-F10

<400> 3724

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caacaatggc ggccaagata ttttccatcc ttatgctcct tgctctttct gcatgtgttg 120

ctaacgcgac catttttccct caatactcac aagctcctat agctgccctt cttcccccat 180

accttccatc aatgaccgct tcagtttgtg aaaaccacgc cttcaaccc tacaggctcc 240

aacaagcaat cgcaacaagc aacttacctt tatcaccctt gttctttcaa caatcgccag 300

ccctatctnt ggtgcagtca ttggtacaaa ccatcagggc acaacagctg caacaactcg 360

tgctaccagt gatcagccaa gtagctctgg caaacctttc tccctactct caagcacaac 420

aatttcttcc attcaaccaa ctgtctacac 450

<210> 3725

<211> 456

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F11

<400> 3725

ctcgctccac ggccatggtg aggatgaagc aggtaaagat ctcggtaaag aaggacgtgg 60
attcgtagac aatccgcggc accaacaagg tcgtccatgt gggcgactgc gtgctgatgc 120
gggcgtcgga ctcggaagc cagccgtatg tggcgcggtt ggagaagatg gaggccgacg 180
gacgcggcag cgtgcgggtg cagggtgcgtt ggtactaccg ccccgaggaa tccaagggcg 240
gtcgccggca gttccacggc gccaaaggagc ttttcctttc cgatcatttc gacctacaga 300
gcgcccacac catcgagggg aaatgtgttg tccactcttt caagaactac accaagcttg 360
ataatgtcgg gcctgaggac tacttctccc gatttgagta caaggcggcc accggttcgt 420
tcacccctga ccgcgtggca gtgtattgca aatgtg 456

<210> 3726

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F12

<400> 3726

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ccttcttccc ccgtacctct caccagcggc gtcttcggta tgtgaaaacc caattcttca 120
accctacagg atccaacagg caatcgagc tggcatctta cctttatcac ccttgttcct 180
ccaacaatca tcagccctat tacagcagtt acctttgggtg catttattgg cacaaaacat 240
cagggcacia caactacaac aacttggtg agcaaacctt gctgcctact ctcagcaaca 300
gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca 360
acaactacca ttcagccagc tacctgttgc ctacccccaa caatttcttc cattcaacca 420
actggcagca ttgaactc 438

<210> 3727

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F2

<400> 3727

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ctgcaacaac cgtcagccct attacagcag ttacctttgg tccatttggg ggcacaaaac 120
atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata ctctcagcaa 180
catcagtttc ttccattcaa ccaactgggt gcattgaact ctgctgctta tttgcaacaa 240
caattaccat tcagccagct agttgctgcc tacccccagc aatttcttcc attcaaccaa 300
ctagcagcat tgaactctgc tgcttattta cagcagcaac aactactacc attcaaccca 360
gtagcttatg tgagccctgg tggctttttg acacaacaac aggtggtggc ggtct 415

<210> 3728

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F3

<400> 3728

caaaaacaca ccaagcgaag cgcactagca acgacctaac accaatggct accaagatat 60
tagccctcct tgcgcttctt gcccttttag tgagcgcaac aaatgcgttc attattccac 120
agtgcctact tgctcctagt gccagtattc cacagttcct cccaccagtt acttcaatgg 180
gcttcgaaca tccagccgtg caagcctaca ggctacaact agcgcttgcg gcgagcgcct 240
tacaacaacc aattgcccac ttgcaacaac aatccttggc acatctaacc ctacaaacca 300
ttgcaacgca acaacaacaa caacagtttc tgccatcact gagccaccta gccgtggtga 360
accctgtcac ctacttgcaa cagcagctgc ttgcatccaa cccacttgct ctggcgaacg 420
tagctgcata ccagcaacaa caacagctgc aaca 454

<210> 3729

<211> 451

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-F4

<400> 3729

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 gcccaaacca tcagggccca ccactacaac aacttgtgct agcanacctt gctgcatact 120
 ctcagcaaca tcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt 180
 tgcaacaaca attaccattc agccagctag ttgctgcta ccccagcaa tttcttccat 240
 tcaaccaact agcagcattg aactctgctg cttatttaca gcagcaaaa ctactaccat 300
 tcagccagct agctgatgtg agccctgctg cttcttgac acaacaacag ttgttgccgt 360
 tctacctgca cgctatgctt aacgctggca cctcttaca actgcaaaa ttgctgccat 420
 tcaaccaact tgctttgaca aaccaacag t 451

<210> 3730
 <211> 465
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-029-Q1-K1-F6
 <400> 3730

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 cggccaagat attttccatc cttatgctcc ttgctctttc tgcatgtgtt gctaacgcga 120
 ccatttttcc tcaataactca caagctccta tagctgccct tcttccccca taccttccat 180
 caatgaccgc tttagtagtg gaaaaccag cccttcaacc ctacaggatc cagcaagcaa 240
 tcgcaacaag caacttacct ttatcacacc tgttctttca acaatcgcca gccctatctt 300
 tgggtgcagtc attggtacaa accatcaggg cagaacagtt gcagcaactc gtgctaccag 360
 tgatcagcca agtagctctg gcaaaccctt cccctactc tcagcaaaa caatttcttc 420
 cattcaacca actgtctata ctgaaccctg ctgcttattt gcagc 465

<210> 3731
 <211> 420
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-029-Q1-K1-F7
 <400> 3731

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acaagaatca ccttcagcaa cctgtttgtc cgtcgggctg gccagggcag cacggagctg 120
 accgtggagg gaaggccatc cgaccagctg ggcaggagaa acctcactga cagccccgta 180
 tttgacggcc gtggccctga cgccagcctc gtggctcgcg tacagggagt cgctaccag 240
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 acgctcgtcn accgaagcgc gatgacggaa gggtcagacg agtgggcat ctacggcgga 360
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<210> 3732

<211> 366

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F8

<400> 3732

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 agctgcttcc attcaaccaa ctgactctgt cgaactctgc tgcgtaccta caacagcgac 120
 aacagttact taatccattg gtagtggcta acccattggc cgcgccttc ctacagcagc 180
 aacaattgct gccatacaac cagttctctt tgatgaatcc tgtcttgtcg aggcagcaac 240
 ccatcgttgg aggtgccatc ttttagatta catatgagat gtactcgata atggtgccct 300
 cataccgacg tgtgtttcct agaaataatc aatatattga ttgagattta tctcgatata 360
 tttctg 366

<210> 3733

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-F9

<400> 3733

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 ggtctttctg caagtgttgc taccgcaacc attttccac aatgctcaca agctcctata 120
 gcttcccttc ttccccata cctctcacca gcggtgtctt caatgtgtga aacccaatt 180
 gttcaaccct acaggatcca acaggcaatc gcaacaggca tcttaccatt atcacccttg 240

ttcctccaac aaccgtcagc cctattacag cagttacctt tgggccattt ggtggcacia 300
aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc atactctcag 360
caacatcagt ttcttccatt caaccaactg gctgcattga actctgctgc ttatttgcaa 420
caacaattac cattcaacca gctagttgct 450

<210> 3734

<211> 109

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-G1

<400> 3734

gtaccatcat tggcggtgcc ctcttttaga ttgcttatga gttatagttc aataatgaag 60
ttttttggat gatgtttgtg gcttcccaga aataagaaag tacatttct 109

<210> 3735

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E5

<400> 3735

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ccagctctga ctcaactagc tgtggcaaac cctgttgcoct acttgcaaca gctgcttcca 120
ttcaaccaac tgactctgtc gaactctgct gcgtacctac aacagcgaca acagttactt 180
aatccattgg tagtggctaa cccattgggc gccgccttcc tacagcagca acaattgctg 240
ccatacaacc agttctcttt gatgaatcct gtcttgtoga ggcagcaacc catcgttgga 300
ggtgccatct tttagattac atatgagatg tactcgataa tgggtgccctc ataccgacgt 360
gtgtttccta gaaataatca atatattgat tgagatttat ctcgat 406

<210> 3736

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D12

<400> 3736

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ttcccgtctc gcagtctccg tggccggacg ccgcgggac atggcatcga cctgtttccg 120
cgccgcccgc cgcgtggcct ccgcccgcg ccgctcggcg gcgccaccc gatcggctcc 180
ctccgcgccc cgtgccgccc acgccgccc ccgcgcctcg tctttctcca ggatgccggt 240
ggagctcggg tgctgcgccc gattgtcgtc gctgccgctg cacagcgcgg tggcgggcggc 300
caggctgacg tcgcccgtga gcacggcgtc gagctgccgg gctctctctc agggatctct 360
ctggtgcacc tatcccgggc ttaacatca gatgggtcta tccggtcgaa ggtgataaaa 420
ccctgggaga cttgctcatg gcatgctg 448

<210> 3737

<211> 454

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-D2

<400> 3737

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aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tgtgatcaac caagtagctc 120
tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 180
cactgaaccc tgctgcttat ttgcagcaac aactattacc atttagccag ctagctactg 240
cctactctca gcaacaacaa cttcttccat ttaaccaatt ggccgcactg aaccccgcgtg 300
cttatttgca gcagcaaata ctactgccat ttaacgagct agctgcagca agtcgtgctt 360
ncttcttgac acagcaacag ttgctgcctt tctacaagca gtttgccggt aaccccgcga 420
cccttttaca actaccacaa ttggtggcct ttgg 454

<210> 3738

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D3

<400> 3738

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ctaccaagat attatccctc tttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120
tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctccctccag 180
ttactttcaat gggcttcgaa caccagctg tgcaagccta caggctacaa caagcgcttg 240
cgggcagcgt cttacaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaacg caacagcaac aacaatttct accagcactg agccaactag 360
ctgtggtgaa ccctgtcgcc tacttgcaac agcagttgct tgcattcaac ccacttgctc 420
tggcaaacaat agttgcatac caacaacaac aacca 455

<210> 3739

<211> 363

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D4

<400> 3739

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ccacttgctc tggcgaacgt agctgcatac cagcaacaac aacagctgca acagtttatg 120
ccagtgetca gtcaactagc catggtgaac cctgccgtct acctacaact actttcatct 180
agcccgcctc cgggtgggcaa tgcacctacg tacttacaac aacagttgct gcaacaaatt 240
gtaccagctc tgactcagct agctgtggca aaccctgctg cctacttaca acagttgctt 300
ccattcaacc aactggctgt gtcaaactct gctgcgtacc tacaacagcg acaacagtta 360
ctt 363

<210> 3740

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D5

<400> 3740

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 tccgatggcc gcgccccagc ccatgagctt ctaccaccag atgggcacgg ggactgcttg 240
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 ggacgaccag gctaattggcg ctgagatctc gtcgatgatg tccgtggccg gccagggcc 360
 tgcgaccacc accaccatag agatggatgg cgtgtggaag tactgaaaac gtggaagggtg 420
 gagggcaaag acatgaattc gcataaatta aatat 455

<210> 3741

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D6

<400> 3741

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 tattccacia tgctcacttg ctctagtgc cattattcca cagttctctc ctccagttac 180
 ttcaatgggc ttggaacacc cagctgtgca agcctacagg ctacaacia cgcttgcggc 240
 gagcgtctta caacaacia ttgccaatt acaacaacia tcttggcac atctaaccat 300
 acaaaccatc gcaacgcaac agcaacaaca atttctacca gcaactgagcc aactagctgt 360
 ggtgaacctc gtcgcctact tgcaacagca gttgcttgca tccaaccac ttgctctggc 420
 aaacatagtt gcataccaac aacaacia 448

<210> 3742

<211> 211

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D7

<400> 3742

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atgtttgtgg ctaaaaaaaaa aaactaaagc aaaaaaaaga aaaataaaaa gtaaaaaaac 180
 aaaaataata ataaaaacta caagctacaa a 211

<210> 3743

<211> 141

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D8

<400> 3743

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<210> 3744

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D9

<400> 3744

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 ccacctccac gcatacaagc ggcggtgcg gctgccagcc accgctgcg gttcatctac 120
 cgccgccggt gcatctgcc cctccggttc acctgccacc tccggtgcat ctcccacccc 180
 cgggtccacct gccgcccgcg gtccacctgc caccgcccgt ccatgtgcg ccgcccgttc 240
 atctgcccgc gccaccatgc cactacccta ctcaaccgac ccggcctcag cctcatcccc 300
 agccacaccc atgcccgtgc caacagccgg atccaagccc gtgccagctt cagggaacct 360
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<210> 3745

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E1

<400> 3745

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gattccatct tcaaggcata tataacagca ttaaataag atcctgatca atacagagct 120
gatgcactaa agatggaaga gtgggcacgt tcccagaacg gtagttcctt agttgatttt 180
tcttccagag atggagaaat cgaggctatt ctgaaagata tatcagaaag ggccaagggt 240
aagggaact tcagctacag ccgattcttt gcagtaggct tgttccgttt gcttgagctc 300
tcaaatacaa cggagccaac aatactagac aagctttgcg ctgcactaaa cgtcagttaa 360
agaagtgtgg atagggacct tg 382

<210> 3746

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E10

<400> 3746

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cgcttgctct ttttggtgaa attgtgctgg cccagaagat tatgtatgaa agatttgggg 120
aggaattcat tatgaacttt gtagctaaag gtcttcctga agttcactgc ccaccggacc 180
tagctgaaca gtactaccag aagttaaagg gaaatgatat caaggcattc aggtcatttt 240
atcaatcact tgttgagaag ataagaccac aaggaaatgg gagtcttggt ttcagatagc 300
atcattcttt gatcttcaat atgtcttcca ccaaagact cctcaactgt gttattcaat 360
tataggctag ttgtgccatc aatgtacata gagctataat ttctgagatt ggaagacgta 420
ttactgcggc attatcttta c 441

<210> 3747

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E11

<400> 3747

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tcaagtaact ggagctgctc ctcccagcgg aaatcggctc cgaccacatc gaactaccga 120

ccgctgccgc cgcgggggcac atcgctgccc aagtcaccgg caacaacatg gtgtccgtgg 180
catagggcca actccggtgc gccctcgccc tcacgcataa cttcctgtca ggccaccact 240
aggccgtcag caaggagtgg gacgtggtcg ccttcgcgca cccagtgtgc aacctggagg 300
aaaagacggg ggacaccatc tacactggat agatcgagca cctgctgcag cagtaccta 360
agccttcacc taccttgatt ggtgccaagc tgtttgtggg gctgcagcac tgccatgagc 420
agggca 426

<210> 3748

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E12

<400> 3748

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cgactgatgc catcctcgcc gctctcatgt gcacgccccg cagcatcctg tcgtgggaca 120
ttgtcgtgca gcgtgtgggc aacaagctgt tccttgacaa gcgtgatggc tcccagctcg 180
acctgctcac tgtcaatgag actgcgcagg agcagcttcc tgagaacaag gatgacatca 240
actccgcaca ctcgctcgct gttgaggcca cctacatcaa ccagaacttc tctcagcagg 300
tgctgcaccg caatgggtgag aagggttaact ttgacgagcc caaccattt gcttctgaag 360
gtggagagggc ttcattctggg ggctaccgct accgccgttt ggagttgaat gatgagatca 420
ggcttgttgc tcgctgtgaa gtgcatgctg 450

<210> 3749

<211> 280

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-E2

<400> 3749

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gcgctcgctg cgagcgccgn ctccagtaca agcggcggtg gtggctgcca gacaccaccg 120
tttcatctac cggctacgtt ctatatgccg cctacgttct atctgccgtc gcagcagcag 180

ccgcagacat ggcaataccc cactcaacca ccgcagctaa acccgtgcc a gcagttcgga 240
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<210> 3750

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-E3

<400> 3750

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gcagtcattg gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat 120
caaccaagta gctctggcaa acctttctcc ctactctcag caacaacaat ttcttccatt 180
caaccaactg tctacactga accctgctgc ttatttgcag caacaactat taccatttag 240
ccagctagct actgcctact ctacagcaaca acaacttctt ccatttaacc aattggccgc 300
actgaacccc gctgcttatt tgcagcagca aatactactg ccatttagcg agctagctgc 360
agcaagtcgt gcttcttctt tgacacagca acagttgctg cctttctaca agcagtttgc 420
ggctaacccc gcaaccctct tacaactaca acaat 455

<210> 3751

<211> 331

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-E4

<400> 3751

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ctntgggtgta aaccaacgga tctcggatcg tagtcttcag aagatcccg attttgcgct 120
tctgcataag aacaacaat caaaagcgtg atcagctcgg tgccaacaaa acctcaacaa 180
ccaagtttca tgtctgatct cgacgtccag ctccatctg cctttgatcc gtttgcgtgag 240
gcaaagtctg aggactctgg tgctggctct gtaacgaagg attatgtgca tgtgcgcgcatn 300
cagcagcgca acggcagaaa gagtctgact a 331

<210> 3752
 <211> 395
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-D11

<400> 3752

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 tgtgtcgaac tctgctgcgt acctacaaca gcgacaacag ttacttaatc cactagcggc 180
 ggctaacca ttggctcgtc ccttcctaca gcagcaacaa ttgctgccat acaaccagtt 240
 ctctttgatg aaccctgcct tgtcgtggca agcaaccat cggtgggtggg gccatctttt 300
 agattacata tgagatgtac tcgataatgg tgccctcata gcggcatgtg tttcctaaaa 360
 ataatcaata tattgattga gatttatctc gataa 395

<210> 3753
 <211> 447
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B8

<400> 3753

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 gatcccttcc tgttaccaac attaggagtc ctacagcagg tggccaagaa ggtttgggtt 180
 cagcaaattt ggaaagcact ctgtgggcac aggggtgggtg tctcaacgct actctttgga 240
 ctcatgtttt gcaaaaccaa tctatgacgc atatgatcca gaactttatg tataatccta 300
 agtccgtgat tcatctgcta aatgtgaatc caagtgcacg tcacatgatg gaatccaata 360
 ctcatatgag agatgtgatt catactccag aatttcttcg ccagttgacg tcttctgaaa 420
 cattgcagca attaatcca ttccagc 447

<210> 3754
 <211> 431
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-B9
 <400> 3754

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 cggcggtctgc ggctgccagc caccgcccgc ggttcatcta ccgcccgcgg tgcattctgcc 180
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 ggtccacctg ccaccgcccg tccatgtgcc gacgcccgtt catctgccga cgccaccatg 300
 ccactaccct actcaaccgc cccggcctca gcctcatccc cagccacacc catgcccgtg 360
 ccaacagccg catccaagcc caggccagct gcaggaacc tgctgcgttg gcagcaccgc 420
 tatcctgggc c 431

<210> 3755
 <211> 441
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-C1
 <400> 3755

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 acaaaccatc gcaacacaac agcaacaaca gttcctacca gcaactgagcc aactagatgt 180
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 aaacgtagct gcataccaac aacaacaaca attgcaacag tttctgccag cgctcagtca 300
 actagccatg gtgaaccctg ccgcctacct acaacagcaa caactgcttt catctagccc 360
 tctcgttggt ggtaatgcac ctacatacct gcaacaacaa ttgctgcaac agattgtacc 420
 agctctgact cagctagctg t 441

<210> 3756
 <211> 403
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C10

<400> 3756

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ccgccatcgt cggtcacgac ggcagcgctt gggcgcagtc cgagagcttc cccgagttaa 180
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ctggtctttt cgttggaggt acaaagtgc tggatgatcca aggtgaacct ggagttgtca 300
tccgaggaaa gaagggcact gggggcatta ctatcaagaa aaccggcatg ttcttgatta 360
taggtgtcta cgactagcca atgactccaa ggcaatgcaa cat 403

<210> 3757

<211> 303

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C11

<400> 3757

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atgatgcgga agggaccac cgacgagatg gtgctggaga ggaggcacg ccgtgtgatc 120
aagaccatat agtctgcctt catgccgct gccaggaagc aggcgtacat aatggatctg 180
gaagctgagt ggtaaacctt acgaccacat caggcagtcg caaataagct cgtagcaatg 240
ctacacaagc acctggatca agtactggac ctattacacc agctacatgg accacatgca 300
ttg 303

<210> 3758

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C12

<400> 3758

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ggccgacgcc tacagccctg gggctgggag gatcacacgc ctcaccagcc acaagttccc 180
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 ggtccaggtc gccagcgaca acgggaccac ggtgttcgac gacgtgctcc gtgcggggca 360
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<210> 3759

<211> 346

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C2

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 acaggctgcg cgatgggtgt gcggtcttc ggctacggct cctcatatg gaaccccggc 240
 ttogacttcg acgacaaaat cctaggcttc attaagggct acaagcgac ctttaatctc 300
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<210> 3760

<211> 445

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-C3

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tgatgatgca gcttgagcgt gccgctgccg ncagcagcag cctgtacgag ccagctctga 420
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<210> 3761

<211> 383

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-C4

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<210> 3762

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C5

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 gggccagtgc gtcgagtttc tgaggcatca gtgcagccc acggcgacgc cctactgctc 180
 gcctcagtgc cagtcgttgc ggcagcagtg ttgccagcag ctcaggcagg tggagccgca 240
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439

<210> 3763

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-C6

<400> 3763

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atgtatctga attctgaaag cgttgtaatc tgagcatccg tgcaaagtat gaatggccct 300

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<210> 3764

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-029-Q1-K1-C7

<400> 3764

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aagaacaggg agtcggccgc caggtcgcgt gcgaggaagc aggcgtacat aatggagctg 180

gaagctgagg tggcaaaact caaggaccag aatgaggagt tgcagaaaaa gcaggttgaa 240

atgctaaaga agcaaaagga tgaggtcctg gagcgtatca acagccaaca tggaccaaag 300

gcaaagaagc ttgacctgcg ccgcacctg actggcccat ggtagcctgc tgaagcttgc 360

acanaattga ccgaagtcaa gatcgtcggg ctagatgtgc ccgtgtgtat atatcagatg 420

aagtcaagag tactgag 437

<210> 3765

<211> 428

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-C9
 <400> 3765

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caaggagaag ccacccccgc ccaaggagga gaagcccgcc ccggcaccgc ccaaggagga 300
gaagcccgcc ccgcccgcgc ccaagggtgt ggagggtccc taccctgtggc cgtaccctga 360
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ctgctcct 428

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<210> 3766
 <211> 358
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-D1
 <400> 3766

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caagatactt tccctcctta tgctccttgc tctttctgca tgtgttgcta acgcgacaat 120
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agcaagcaac atacctttat cacccttgtt tcaacaatcg ccagccctat ctttggtgca 300
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 <211> 325
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
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<400> 3767

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gtcaggaacc tcaagagcgc cggcagcacc ggcggtcgac aggcggcgcc gntctgcaac 300
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<210> 3768

<211> 459

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B7

<400> 3768

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcag ccctataggc tccaacaagc aatcgagca 240
agcaacatac ctttatcacc cttgttgttt caacaatgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacagcag ctgcagcaac tcgtgctacc tgtgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aaacaatttc ttccattcaa 420
ccaactgtct aactgaacc ctgctgctaa tttgcagca 459

<210> 3769

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-D12

<400> 3769

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agaatggggg gtttcgtgaa gactcataag accaatgcgt atttcaaacg tttccaagt 120

aaattcaaga gaaggcgggc tggcaagaca gactacaggg ccaggataag gctgattaac 180
caagacaaaa acaagtacaa cacacccaaa tacagatttg ttgtgcgatt taccaacaag 240
gacatcactg cccaaatcat atctgctagt atagcgggtg atatggttct tgcttctgcc 300
tactgcatg agttgccacg atatggtctt gaagttggtc tgaccaacta tgcagctgcc 360
tactgcactg gccttctgtt ggctcgccgt gtgctcaaga tccgtgggtt ggat 414

<210> 3770

<211> 327

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-E10

<400> 3770

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tccttatgct ccttgggtctt tctgcaagtg ctgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc tttcttcccc catacctctc accagcgggtg tcttcagtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagca agcatcttac 240
ctttatcacc cttgttcctt caacaacccg tcagccctat tacagcagtt acctttgggtg 300
catttggttg cacaaaacat caaggca 327

<210> 3771

<211> 323

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-E11

<400> 3771

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gaactctggt agagaagtca gaacattgtc cggatgatta taatttgga atgaagagga 120
aaagaaacga tggtaaaaa ggtacagttg ttctaaatag cggttctaaa gtagagggat 180
tgttatgtct tttggaacag gccattcaca gtggcagggc acttggtctg agtgaagatg 240
agcttgctga ttcagatctg gtctatgaaa agtctgttgc ttttacaag tcaattccgc 300
gaagactggt ttttgagaat act 323

<210> 3772
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-E12

<400> 3772

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ctacccccag caatttcttc cattcaacca actgacagct ttgaactctc ctgcttattt  180
acagcagcaa caactactac cattcagcca gctagctggg gtgagccctg ctaccttctt  240
gacacaacca caattgttgc cgttctacca gcacgctgcg cctaacgctg gcaccctctt  300
acaactgcaa caattgctgc cattcaacca acttgctttg acaaaccxaa cagcattcta  360
ccaacaaccc atcattgggtg gtgccctctt ttagatttct tatgagttat agttcaataa  420
taaaagtttt tggctg                                     436
  
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<210> 3773
 <211> 459
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-D11

<400> 3773

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ccttcttccc ccgtacctct caccaacggt gtcttcggta tgtgaaaacc caattcttca  180
accctacagg atccaacagg caatcgagc tggcatctta cctttatcac ccttgttcct  240
ccaacaatca tcagccctat tacagcagtt acctttgggt catttattgg cacaaaacat  300
cagggcacaa caactacaac aacttggtgt agcaaacctt gctgcctact ctcagcaaca  360
gcagtttctt ccattcaacc aactagctgc attgaactct gcttcttatt tgcaacaaca  420
acaactacca ttcagccagc tatctgctgc ctacccccca                                     459
  
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<210> 3774

<211> 422
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-010-Q1-K1-B9
 <400> 3774

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 gagaagacta gcataggtag tgaccagaag gaagttgagg gaaaatattg tttgattgcg 180
 aaagatgtag taaagcttag aagatgtgga aacggatggc acatgactga agatgatgaa 240
 agtagctgtg catgttttga ggatgagcac tgtttggtag ctgttctgaa cccaggcttt 300
 tcatggattg aggtctacta tgccaggcca tactctttga gatgtttaca aaaaggaaga 360
 aattctgtat catcacatac tgcaaatagt aactttggac agagtccttg tgaaggatct 420
 tt 422

<210> 3775
 <211> 448
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-010-Q1-K1-C10
 <400> 3775

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 cctccttgcg cttcgggccc tttttgtgag cgcaacaaat gcgttcatta ttccacaatg 120
 ctcaattgct ctagtgcca ttattccaca gttcctccca ccagttactt caatgggctt 180
 cgaacaccta gctgtgcaag ccaacatgca acaacaagcg cttgcggcga gcgtcttaca 240
 acaaccaatt gcccaattgc aacaacaatc cttgccacat ctaacaatac aagccatcac 300
 aacgcaacag caacaacagt tcctaccagc actgagccac ctagccatgg tgaaccctgc 360
 cgnctacttg caagagcagc tgcttgcac caacccactt gctctggcga acgtagttgc 420
 aaaccagcaa caacaacagc tacaacag 448

<210> 3776
 <211> 436

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-010-Q1-K1-C11
 <400> 3776

gcaacataga aagcacaata gtgtaccaac aatggcagcc aaaatatttt gcctccttga 60
 ggctccttgg tctttctgca agtgctgcta cggcgaccat tttcccgcaa tgctcgcaag 120
 ctcttatagc ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa 180
 acccaattct tcaaccctac aggatccaac aggcaatcac agctggcatc ttacctttat 240
 cacccttggt cctccaacaa tcatcagccc tattacatca gttacctttg gtgcatttat 300
 tggcacaaaa catcatggca caacaactac aacaacttgt gctagcaaac cttgctgcct 360
 actctcagca acagcagttt cttccattca accaactagc tgcattgaac tctgcttctt 420
 atttgcaaca acaaca 436

<210> 3777
 <211> 275
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-010-Q1-K1-C12
 <400> 3777

gccgcgggtt catctgccgc cgccaccatg ccaactacct actcaaccgc ggcggcctgg 60
 gcctcatccc cagccacacc catgcccgtg ccaacagccg catccaagcc cgtgccagct 120
 gcagggaacc tgcggcggtg gcagcacccc gatcctgggc cagtgcgtcg agttcctgag 180
 gcatcagtgc agcccagcgg cgacgccta ctgctcgccct cagtgccagt cgttgccggca 240
 gcagtgttgc cagcagctca ggcaggtgga gccgc 275

<210> 3778
 <211> 428
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-010-Q1-K1-C9
 <400> 3778

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gaccataag accaatgcgt atttcaaacg tttccaagt aaattcaaga gaaggcgggc 120
 tggcaagaca gactacaggg ccaggataag gctgattaac caagacaaaa acaagtacaa 180
 cacacccaaa tacagatttg ttgtgcgatt taccaacaag gacatcactg cacaaatcat 240
 atctgctagt atagcgggtg atatggttct tgcttctgcc tactctcatg agttgccacg 300
 atatggctct gaagttggtc tgaccaacta tgcagctgcc tactgactg gacttctgtt 360
 ggctcgccgt gtgctaaaga tccgtggttt ggataaggag tatgaaggca atgttgaggc 420
 cactggtg 428

<210> 3779

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-A10

<400> 3779

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 cggggtcaga ggaatggcgg cgacgtcgcg gctggcgctg gccctcctgc tggccgcctt 120
 ggtggcgggc tggcagctgc cggcgggcggc ggtggcgggc aactacacgg tgggcgacga 180
 gaaggggtgg aaccgggacg tggactacac ggcggtgggtg aagaagcaca agccgttcta 240
 caagggagac tggctcatct tcgagtacca gaacggggcg tgggacgtgg tgcaggtgga 300
 cgaggtcggc tacgacaact gcgacaaggc caacgcgctg agcagctaca gcaagggcca 360
 cacctacgcc ttccagctca aggacgcca ggactactac ttcatctgca gct 413

<210> 3780

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-A9

<400> 3780

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 cttccttatg ctgcttggtc tttctgcaag tggtgctacc gcaaccattt tcccacaatg 120
 ctcaagct cctatagctt ccttcttcc cccatacctc tcaccagcgg tgtcttcaat 180

gtgtgaaacc ccaattgttc aaccctacag gatccaacag gcaatcgcaa caggcatctt 240
accattatca cccttgttcc tccaacaacc gtcagcccta ttacagcagt tacctttggt 300
ccatttggtg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcatac tctcagcaac atcagtttct 390

<210> 3781

<211> 444

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-010-Q1-K1-B10

<400> 3781

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cttatgctcc ttgggtcttc tgcaagtgtc gtaacggcga ccattttccc gcaatgctcg 120
caagctccta tagcttcctt tcttcccccg tacctctcac cagcgggtgc ttcgggtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg catcttacct 240
ttatcacctt tggttcncaa caatcatcag ccctataaca tcagttacct ttgggtgcatt 300
tatgggccc aaccatcagg gcacaacaac tacaccaact tgtgctagca aaccttgcgt 360
nctactctca gcaacagcag tttcttccat tcaaccaact agctgcattg aactctgctt 420
cttatttgca aacacaacaa ctac 444

<210> 3782

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-010-Q1-K1-B12

<400> 3782

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acccccagca atttcttcca ttcaaccaac tagcagcatt gaactctcct gcttatttac 120
agcagcaaca actactacca ttcagccagc tagctgggtg gagccctgct accttcttga 180
cacaaccaca gttgttgccg ttctaccagc acgttgcgcc taacgctggc acctcttac 240

aactgcaaca attgctgcc a ttcaaccaac ttgctttgac aaaccagca gtgttctacc 300
aacaacccat cattggtggt gccctctttt agatttctta tgagttatag ttcaataata 360
aagtttttta tctgatgttt gtggcttccc agaaataaga aagtacattt ct 412

<210> 3783

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H9

<400> 3783

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tttcggctcc ttatgctcct tgctatgact gcaagtgtg ctacggcgac catttttccg 120
caatgctcac aagctcctat agcttccctt cttgccccgt acctctcacc agcgggtgtct 180
tcggtatgtg aaaacccaat tcttgaacct tacaggatcc aacaagcaat cgcagctggc 240
atcttacctt tatcaccctt gttcctacaa caatcatcag cctattaca gcagttacct 300
ttggtgcatt tattggcaca aaacatcaag gcgcaacaac tacaacaact tgagctagca 360
aaccttgctg cctactctca gcaac 385

<210> 3784

<211> 313

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A11

<400> 3784

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cgccgccgag cagccaattc caaagcgtga caaagccgct gcaaattgatt caacatacct 120
caatcctcaa gctcatgata gtgttcttgg aatcattctg ggaggtggtg ctgggactag 180
attgtacccc ttgacaaaga agcgtgccaa gcctgcagtg ccattgggtg ccaactatag 240
actgattgat attcctgtca gcaattgtct caacagcaac atatccaaga tctatgtgct 300
aacgcaattt aac 313

<210> 3785

<211> 450
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A12

<400> 3785

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ttccttatgc tccttggctc ttctgcaagt gttgctaccg caaccatttt cccacaatgc  120
tcacaagctc ctatagcttc ccttcttccc ccatacctct caccagcggg gtcttcaatg  180
tgtgaaaccc caattgttca accctacagg atccaacagg caatcgcaac aggcattcta  240
ccattatcac ccttggttct ccaacaaccg tcagccctat tacagcagtt acctttgggc  300
catttggtgg cacaaaacat cagggcacia caactacaac aacttggtgc agcaaaccct  360
gctgcatact ctcagcaaca tcagtttctt ccattcaacc aactggctgc attgaactct  420
gctgcttatt tgcaacaaca attaccattc                                     450
  
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<210> 3786
 <211> 203
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A3

<400> 3786

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gaacctccgc gagaaccgtc cgccgcgaac ctaccgcaa acccagccgc gatcctcaag  120
cccgcaaata cctccacaaa tagcgccgcg accgtctcgc cggctcgccg gcactaacca  180
gcaaagagtt gtccagcgcc cac                                     203
  
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<210> 3787
 <211> 404
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-029-Q1-K1-A4

<400> 3787

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cccacgcgtc cgattgagac caactagcat catagaaagc acaatagtgt accaacaatg   60
  
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gcagccaaaa tattttgcct ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg 120
 accattttcc cgcaatgctc gcaagctcct atagcttccc ttcttcccc gtacctctca 180
 ccagcgggtgt cttcgggtatg tgaaaaccca attcttcaac cctacaggat ccaacaggca 240
 atcacagctg gcatcttacc tttatcaccc ttgttcctcc aacaatcatc agccctatta 300
 catcagttac ctttgggtgca tttattggca canaacatca nggcacaaca actacaacaa 360
 cttgtgctag caaaccttgc tgcctactct cagcaacagc agtt 404

<210> 3788

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A6

<400> 3788

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 ccaccagaaa tggcggtagg cgcgtcatga tcaccaaagc acctagcggg gtccacgtca 120
 cctgtatata tgtcaacatc cagcatgcag tggtttcatt agttcggatc aacgggacct 180
 tgtggctgga tgataaaaat ggttcgcatg gccacacagc ttggcgggac ctcggcctaa 240
 actccctcca ctgctggcct acagaggcgc ctgtgttgcc atcatcagaa catgattcgg 300
 tagccattca ccacattatt aatgaatgaa cctgggaagc agaattgcct gtagacgagc 360
 tgctctgatg tgtaaacgag tagcgtgtt cggataggac aggcatttag tccaatccct 420
 gtatatatta accagattca ttcaatccat 450

<210> 3789

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A7

<400> 3789

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 ttcacctgcc acctccggtg catctccac cgccgggtcca cctgccgccg ccggtccacc 120
 tgccaccgcc ggtccatgtg ccgccgccg ttcatctgcc gccgccacca tgccactacc 180

ctactcaacc gccccggcct cagcctcctc cccagccaca cccatgcccg tgccaacagc 240
 cgcattccaag cccgtgccag ctgcagggaa cctgcagcgt tggcagcacc ccgatcctgg 300
 gccagtgcgt cgagttcctg aagcatcaat gcagcccgac ggcgacgccc tactgctcgc 360
 ctcagtgccg gtcgttgccg cagcagtgt 389

<210> 3790

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A8

<400> 3790

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 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcacagct ggcattctac 240
 ctttatcacc cttgttctc caacaatcat cagccctatt acatcagtta cttttggtgc 300
 atttattggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
 ctgcctactc tcagcaacag cagtttcttc cattcaacca actagctgca ttgaactctg 420
 cttcttattt gcaacaacaa caactaccat 450

<210> 3791

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A9

<400> 3791

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 gcaagccccg ccgcccggg agaagaagga ggaggccgcc ccgccccgc cggcgaaggt 180
 ggaggccgcc aaggaggagc caccgaagga gaagccccg ccaccaagg aggagccgcc 240
 caaggagaag ccacccccgc ccaaggagga gaagcccgcc ccggcaccgc ccaaggagga 300

gaagcccgcc ccgcccgcg ccaaggtggt ggaggtcccc taccctggc cgtaccgta 360
 cccgtaccct gcgtggccgt ccgactgctg ctgccaccac 400

<210> 3792

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B1

<400> 3792

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 gcccttgcgc ggggctgcag ggcttgtacg gcgctggcgc cggcctgacg acgatgatgg 180
 gcgccggcgg gctgtacccc tacgcggagt acctgaggca gccgcagtgc agcccgtggt 240
 cggcgggcgc ctactacgcc ggggtgtggg cagacgagcg cccatgtacc cagccgttcc 300
 gcaacagtgc tgccagcaac aaatgaagat gatggacgtg cagtccgtcg cgcattcagct 360
 gcagatgatg atgcagcttg agcgtg 386

<210> 3793

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B10

<400> 3793

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 atggcgctcg aggtggagga cgaggcggcg acgccgctgc tcgccaacgg tgcagccgac 120
 gtccgccgga ggagggacca ggcgaaggca attctgtcca cgcaggccgt caggatcgcc 180
 accaaggccg agcagcatga gcgcttcac ttttaagggtca cacacttgct ggggtgttctt 240
 ggattttggg gatttttgcta tctcttgggt gccagaccac aggatgtgcc atatgtgtac 300
 tgccgtgtct atgtcatatt tgttccgctc cgttggtatt actaccgcta caagaaatgg 360
 cattactacc ttctggactt ctgctactat gccaacacct ttctccttgt aatgattctc 420
 ttctaccagc aggatgaaaa actttt 445

<210> 3794
 <211> 441
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-029-Q1-K1-B11

 <400> 3794

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 cggggagata ccaggcgtga aaggggtgcta tgtggccacg ggccacagct gctgggggtat 180
 cctcaatggc ccggccaccg gcgcagccct cgccgagctc atcctggacg gcaagtccaa 240
 gatcgttgat ctcgagcctt tcagcccggc aaggtttctc aagagaagga gcaggcgtgg 300
 agtctgaccg tgtgaatgtt cagattcaag ctcgctactg aataaaacac tcttggttct 360
 cccgtttgca tgactgatga gtgttgcaaa acatgtatgt gcgaataaat catggatata 420
 tagtacttga tgttctgtat t 441

<210> 3795
 <211> 54
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-029-Q1-K1-B2

 <400> 3795

ccagctagca acatatatag cacaatagtg tactaacaat ggcagccaaa atat 54

<210> 3796
 <211> 421
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-029-Q1-K1-B3

 <400> 3796

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 gttccattat tacacagttc ctcccaccag ttacttcaat gggcttcgaa caccagctg 180

tgcaagccta taggctacaa caagcaattg cggcgagcgt cttacaacaa ccaatttccc 240
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 aacaattcct accagcactt gaccacctag ccatgggtgaa cccttgcgtc tacttgcaac 360
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<210> 3797

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B4

<400> 3797

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 agctggagga tggccgcact ctcgcggact acaacatcca gaaggagagc acccttcacc 180
 ttgttctccg cctcaggggt ggtatgcaga tctttgtgaa gaccctgact ggaaaaacca 240
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 aggagggcat cccccggac cagcagcgtc tgatcttcgc cggcaaacag ctggaggatg 360
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<210> 3798

<211> 197

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B5

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 aaaaaagaca aacacaaaaa aacataaaca acaaaaaaca taaaacacaa aaaaaaaca 180
 agcataaaaa agaccaa 197

<210> 3799
 <211> 431
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-B6

<400> 3799

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 tactcacaag ctctatagc tgcccttctt ccccatacc ttccatcaat gaccgcttca 180
 gtttgtgaaa acccagccct tcaaccctac aggctccaac aagcaatcgc aacaagcaac 240
 ttacctttat caccctgtt ctttcaacaa tcgccagccc tatctttggg gcagtcattg 300
 gtacaaacca tcagggcaca acagctgcaa caactcgtgc taccagtgat cagccaagta 360
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 ctacactgaa c 431

<210> 3800
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 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-029-Q1-K1-A10

<400> 3800

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 tggttttcct tctagcactg gaagtacaag tgtgttcctc aattaagaca attacctgca 240
 ataataaacc tcagttagta acaacataga tggcaagggc acaacataga ttagtaataa 300
 caagtctata ccataacact attcccagat tattgcctac gtcccacaat atgccaaggg 360
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<210> 3801
 <211> 435

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
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ccttcgaggt gggcacctct gtgtggccct cgtccctggt cctcgtcaag ttcgtcgagc  180
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<210> 3802
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 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-G7
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aggctgcacc ggcgcaggag cagcaggcca acggcaacgg caacggcgag cagaagacgc  180
gccactccga ggtcggccac aagagcctgc tcaagagcga cgacctgtac cagtacatcc  240
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ccaagcacc atggaacctg atgaccacct ccgcgcacga gggccagttc ctcaacatgc  360
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 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G8

<400> 3803

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ccattttttcc tcaataactca caagctccta tagctgcctt tcttccccca taccttccat 180

caatgaccgc ttcagtttgt gaaaaccag cccttcaacc ctacaggctc caacaagcaa 240

tgcgaacaag caacttacct ttatcacccc tgttctttca acaatcgcca gccctatctt 300

tgggtgcagtc attggtacaa accatcaggg cacaacagct gcaacaactc gtgctaccag 360

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<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G9

<400> 3804

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cacaatgctc acttgctcct agtgccatta taccacagtt cctccgacca gttacttcaa 180

tgggcttcga acacctagct gtgcaagcct acaggctaca acaagcgctt gcggcgagcg 240

tcttacaaca accaattaac caattgcaac aacaatcctt ggcacatcta accatacaaa 300

ccatcgcatc acaacagcaa caacagttcc taccagcact gagccaacta gatgtggtga 360

accctgtcgc ctacttgcaa cagcaggtgc ttgcatcaa cccacttgct ctggcaaacg 420

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<211> 195

<212> DNA

<213> Zea mays

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<400> 3805

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cgcagtacct cctccatatt cgtccagctc tctcgactct gaggactgac agagaaagag 180
aggatgagat gggac 195

<210> 3806

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H11

<400> 3806

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tgatgatgag aaagttgcc actgcattct cgagaagacc tggaagccca agtatgatgt 180
tgagaaggaa aaggagaagg ctgaggatgc tgctgctggt gcagatggtc tttctgactt 240
ccagaagaag atttttgacg ttctgtacaa gattgctgat attccgttct tggcacccta 300
ctataccaac attattgatg ctatcgagaa ggcagagaaa cagcccaaca tcaactattgg 360
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<210> 3807

<211> 301

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H12

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ctactctgat gaacagcggc atcttccatt cagcgaactg gctgcatcga aatctggtgc 180
ttatttgcta caagaactac catgcagtca cctatgtgat ggctactgga agaaatgtct 240

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<210> 3808
<211> 404
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H2

<400> 3808

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gtatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc agcaagcaac 240
atacctttat cgcccttgtt gtttcaacaa tcaccagccc tatctttggg gcagtcattg 300
gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctgtgat caaccaagta 360
gctctggcaa acctttctcc ctactctcag caacaacaat ttct 404

<210> 3809
<211> 414
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H3

<400> 3809

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atttggcggc acaaaacatc agggctcatc aactactaca acttgtgcta gcaaacttg 180
ctgcatactc tcagcaacat cagattatct cattcaacca actggctgca ttgaactctg 240
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ttactacatt caaccaacta gcagcattga actctgctgc ttatttacag cagccacatc 360
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<210> 3810

<211> 275
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-028-Q1-K1-H4

 <400> 3810

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 agggccaaga ccaagagcag tgagaccgcg tacaggtgca tctgggtgaa ggtcaccgga 180
 ccgcacggta actccggcgt tgtccgatcc aagttcaagt aaaacctgcc ggctgagtct 240
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<210> 3811
 <211> 309
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-028-Q1-K1-H5

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 cgtgtttag acctacacat accttgtagc aaggaaacta gccgaccaa aggttatgct 180
 cttgctgagt atgaaacaga tgacattgcc cagtatgcca ttaagctatt ttctggcctt 240
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<210> 3812
 <211> 398
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-028-Q1-K1-H6

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ggagcatcgg gtagtgcacc agagctagga gtgatcaagg caatccctac gaagagacgc 180
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aagggtgccg acacatggaa attcatcgat gagaagttga agaagaacaa acctgcagcc 300
gcctgaggaa catgcttgca ggcatagctt ttgtaggtat aactggctt ggtggtgata 360
tctaggacct ggaacttgct tgctcacatg tagtagag 398

<210> 3813

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H7

<400> 3813

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actagaggga ggcttgaggy ataagcctgg aaagaacaga gatcactatc attcatgcta 180
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attacctcag catgtgcttg gaccgtactc taatttgctg gagccaatcc attcactcta 300
caatgttgtc ctagataagt accatacagc ctatgagttc ttctcagaag agtgatctaa 360
tgttagaacc taagaacaat tggct 385

<210> 3814

<211> 373

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-H8

<400> 3814

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gcttcccttc ttccccata cctctcacca gcggtgtctt caatgtgtga aaccccaatt 180
gttcaaccct acaggatcca acaggcaatc gcaacaggca tottaccatt atcacccttg 240
ttcctccaac aaccgtcagc cctattacag cagttacctt tgggtccattt ggtggcacat 300

aacatcaggg cacatcaact acaacaactt gtgctagcaa accttgctgc atactctcag 360
 caacatcagt ttc 373

<210> 3815
 <211> 433
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-H9
 <400> 3815

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<210> 3816
 <211> 358
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-029-Q1-K1-A1
 <400> 3816

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 accagatcct gtgaacactg gccataaagc ttatgatttc gttgatgacg cactcaaaaa 240
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 aaaatggctt gggcttgcca ggattgtaag aagaatttaa gggattacca tgaagtta 358

<210> 3817

<211> 443
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-G5
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 attatagctt cagtatgtga aaaccagct cttcaaccat ataggcttca acaagcaatc 240
 gcagctagca acataccttt atcgcccttg ttgtttcaac aatcaccagc cctatctttg 300
 gtgcagtcac tggtaaaaac catcagggca caacagctgc agcaactcgt gctacctgtg 360
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<210> 3818
 <211> 433
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-F12
 <400> 3818

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 cttcaacct ataggatcca acaggcaatc gcagctggca tcttaccttt atcacccttg 240
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 aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
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 caacaacaac tac 433

<210> 3819
 <211> 420
 <212> DNA

<213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-F2
 <400> 3819

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<210> 3820
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 aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc aaaccttgct gcctactctc 360
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 aacaacaaca actaccattc agccagc 447

<210> 3821
 <211> 427
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-F4

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gtgtccagtt tgcgagcaag acagcatttg ctggggtttc gtatctgtgg cttcgatgtc 300
gtgcctgcaa ggaggctcta cctgagaatc tggggagaga tagctgttct cttgaggttg 360
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tgagtct 427

<210> 3822

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F5

<400> 3822

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gcgactatta ttccacaatg ctcaacaaca tacctctctc cggtgacagc cgcgagattt 180
gaatacccaa ctatacaatc ctacaggcta caagaggcca tcgcagcaag catcttacgg 240
tcgttagcat tgaccgtcca acaaccatat gccctattgc aacaaccatc cttaatgaat 300
ctatatctcc aaagaatcgc agcacaaca ctacaacaac agttgcttcc aacaatcaat 360
caagtagttg cagcgaacct tgctgcttac cttcagcaac aacaatttct tccattcaat 420
caactagctg ggggtgaacct tgctgc 446

<210> 3823

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F6

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ccgccacctt cctcgccgcc tccgctaacg agcaagccaa ggcggccaaa gaggagaaga 180
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ggtgctgctc gcacctgat cagataccag agcccatgta ccgtcctgag ctcgctgagg 360
tccacaacta aatagtatac gggtagctat gccccgatgg gaatgaatgg gaagcaagag 420
cacacgcgta gtacgctcgt c 441

<210> 3824

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F7

<400> 3824

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tttctacatg tggttgtaac ggcacaattt tccctcaatg ctcaacaagct cctatagctt 120
cccttcttcc ccatacctt ccatcaatta tagcttcaat atgtgaaaac ccagctcttc 180
aaccatatag gcttcaacaa gcaatcgag caagcaacat acctttatcg cccttggtgt 240
ttcaacaatc gccagcccta tctttggtgc agtcattggt acaaaccatc agggcacaac 300
agctgcagca actcgtgcta cctctgatca accaagtagc tctggcaaac ctttctccct 360
actctcagca acaacaattt cttccattca accaactgtc tacactgaac cctgctgctt 420
atttgcagca tcaactatta ccatt 445

<210> 3825

<211> 187

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F8

<400> 3825

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ctatctacaa gagatgctat cagacaaca cgcgtcaac gtttaactaa ctcaatagct 120
gcctttaatg atagataact tacaacggtc atagaatcaa aacctgaaaa cgataatgca 180
catgcac 187

<210> 3826

<211> 369

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F9

<400> 3826

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gggcctacta tgctgctcac gataatgcag atgggaagtt ctgccttgcc cgaagtcttc 120
tcttctaagg taaaaaaaaa ctaactcgac aactgttttg tatctcgaat taataagtgc 180
tgcaagtaga ataccaaga ttacctgtag ctcaccttca gctgggatgg ttgcaatgca 240
acaacgaata caaaagcgca agcttgggag taacagcatg tgcacatgaa gggagaacaa 300
gccaaaacca tgaaaggcca acaagacagc tatataaatt gactgcaata ttctaataata 360
tttgctagc 369

<210> 3827

<211> 444

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G1

<400> 3827

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cctatagctt cccttcttcc ccatacctt ccatcaatta tagcttcagt atgtgaaaac 120
ccagctcttc aaccatatag gcttcaacaa gcaatcgag caagcaacat acctttatcg 180
cccttggtgt ttcaacaatc accagcccta tctttggtgc agtcattggg acaaaccatc 240
agggcacaac agctgcagca actcgtgcta cctgtgatca accaagtagc tctggcaaac 300
ctttctccct actctcagca acaacaattt cttccattca accaactgtc tacactgaac 360
cctgctgctt atttgcagca acaactatta ccatttagcc agctagctac tgctactct 420

cagcaacaac aacttcttcc attt

444

<210> 3828

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G11

<400> 3828

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tccgggtgcat ctcccaccgc cgggtccacct gccgccgccg gtccacctgc caccgtcgggt 180
ccatgtgccg ccgccgggtc atctgccgcc gccacctatgc cactacccta ctcaaccgcc 240
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gtgccagctg cagggaacct gcggcggttg cagcaccgcc atcctgggccc agtgcgctga 360
gtttctgagg catcagtga gcccgacggc gacgccttac tgctgcctc agtgccagtc 420
gttgccggcag cag 433

<210> 3829

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G12

<400> 3829

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ccttgctctc ctggcgctcg ctgcgagcgc cgcctccagt acaagcggcg gctgtggctg 120
ccagacacca ccgtttcatc taccgcctcc gttctatatg ccgcctccgt tctatctgcc 180
gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccggtg 240
ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt 300
cgagtctctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc cacagtgcc 360
ggcgctgcag cagcagtgt gccaccagat caggcaagtg gagccgctgc accggtacca 420
ggcgacatac 430

<210> 3830
 <211> 438
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G2

<400> 3830

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tccttatgct ccttgggtctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120
cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagctt ggcattcttac 240
ctttatcacc cttgttctc caacaatcat cagccctatt acaacagtta cctttgggtg 300
atttattggc acaaaacatc agggcacaac aactacaaca acttggtgcta gcaaacttg 360
ctgcctactc tcagcaacag cagtttcttc cattcaacca actaagttca ttgaactctg 420
cttcttattt gcaacaac 438
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<210> 3831
 <211> 446
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-G3

<400> 3831

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ggcaatcaca gctggcatct tacctttatc acccttggtc ctccaacaat catcagccct 60
attacatcag ttacctttgg tgcatttatt ggcacaaaac atcagggcac aacaactaca 120
acaacttggt ctagcaaacc ttgctgccta ctctcagcaa cagcagtttc ttccattcaa 180
ccaactagct gcattgaact ctgcttctta ttgcaacaa caacaactac cattcagcca 240
gtacactgct gctaccccc agcaatttct tccattcaac caactggcag cattgaactc 300
tcctgcttat ttacagcagc aacaactact accattcagc cagctagctg gtgtgagccc 360
tgctaccttc ttgatacaac cacagttggt gccgttctac cagcacgctg cgcctaacgc 420
tggcacccctc ttacaactgc aacaat 446
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<210> 3832

<211> 437
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-G4
 <400> 3832

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 ttacatcagt tacctttggt gcattttattg gcacaaaaca tcagggcaca acaactacaa 120
 caacttggtg tagcaaacct tgctgcctac tctcagcaac agcagtttct tccattcaac 180
 caactagctg cattgaactc tgcttcttat ttgcaacaac aacaactacc attcagccag 240
 ctacctgctg cctacccccca gcaatttctt ccattcaacc aactggcagc attgaactct 300
 cctgcttatt tacagcagca acaactacta ccattcagcc agctagctgg tgtgagccct 360
 gctaccttct tgatacaacc acagttgttg ccgttctacc agcacgctgc gcctaacgct 420
 ggcacctctt tacaact 437

<210> 3833
 <211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-F11
 <400> 3833

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 tgctcggttg cctcgctctc ctggctctcg ctgcgagcgc cacctccacg catacaagcg 120
 ggggctgcgg ctgccagcca ccgcccggcg ttcattctacc gccgcccgtg catctgccac 180
 ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgcccggcg 240
 tccacctgcc accgcccgtc catgtgccgc cgccggttca tctgccgcgc ccaccatgcc 300
 actaccttac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360
 aacagccgca tccaagcccg tgccagctgc agggaaacct cgccggttggc agcaccgccg 420
 tcctgggcca gtgc 434

<210> 3834
 <211> 438
 <212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-G4

<400> 3834

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tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180
ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaaaa caagcgcttg 240
cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300
caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360
ccatggtgaa ccctgccgnc tacttgcaag agcagctgct tgcaccaac ccacttgctc 420
tggcgaacgt agttgcaa 438

<210> 3835

<211> 298

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G5

<400> 3835

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atctcgcggt ggtgctcctc ctctcctcc cctgctccc ggggcgggcg ctctcctgtt 120
ctctcctcctc ctgctgctgg tgccagggcc gggagggcgg cgcggatgtg gcgctcatgg 180
ggctcgcgccg ggacggatcc gcggacaccg gcaacctcag tactagttaa aatggctcgg 240
tcagctatgg agctgccagt tcttcccga caagagcatt gctggacgac ttttatga 298

<210> 3836

<211> 430

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-G6

<400> 3836

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cacgagctaa cgtgtggtgg gccgtcgagt gaaacaagat tcgccatgcg gcggaacagg 120
aaggattccg gctatccgac ggcggctcta ggggaggagg atgaggcgga ggaactgact 180
gaggagggcg acgaggaaga ggaggaacag acggaggagg gatgtggtga ggaggacgaa 240
gttgaagcgg agacaccggc gcaggaagct gtggagccgc cgaagctggc tgagggctac 300
ttcgagatcg aggccatccg ncgncgncgc ctccgcaagg gtcagctcca gtacctcgtc 360
aagtggcgtg ggtggccaga gagtgctaac acatgggaac cccttgaaaa cctgaaggcc 420
tgttctgaca 430

<210> 3837
<211> 269
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-009-Q1-K1-G7
<400> 3837

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tctttctgca agtgtctgcta cggcgaccat tttcccgcaa tgctcgcaag ctcttatagc 120
ttcccttctt cccccgtacc tctcaccagc ggtgtcttcg gtatgtgaaa acccaattct 180
tcaaccctac aggatccaac aggcaatcac agctggcatc ttacctttat cacccttggt 240
cctacaacaa tcatcagccc tattacatc 269

<210> 3838
<211> 317
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-009-Q1-K1-G8
<400> 3838

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tgaggcgggc ggctacggcg gtggcgggcg ccgtgatggc ggccggcggt acggcggtgg 120
cggcggttac ggtggtggcg gcggcggtta cggtggtggt ggccggcggt acggcggtgg 180
caaccgtggc ggccggctac gcaactccga cgggaactgg aggaactgag cgggtggggc 240

cgcgcgccca agttatcctg ttcgctaccg tgtctgttac cctagtccag agtggtttatc 300
 ttcgttcgtc tcgtgtt 317

<210> 3839

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G9

<400> 3839

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 acctaacaac aatggcttcc aagacattat ccctccttgc gcttcttgcc ctttttgtga 120
 gtgcaacaaa tgcgttcatt attccacaat gctcaacttgc tccgagtgc attattccac 180
 agttcctccc tccagttact tcaatgggct tcgaacaccc agctgtgcaa gcctataggc 240
 tacaacaagc gcttgcggcg agcgtcttag aacaaccaat tgcccaatta caacaacaat 300
 ccttggcaca tctaaccata caaacctcgc caacgcagca gcaacaagca ctgagccacc 360
 tagccgtggt gaaccctatc gcctacttgc aacaacagct gcttgca 407

<210> 3840

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H1

<400> 3840

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 ttggctcacc gtcgtcacag ccagcagcaa aggacatcag ctccaccgtc gtcgtcacca 120
 aggtcggagt gtgggggtgga gagggagggt cggcgcagga catcgcgacg acggagccgc 180
 cgaggcgtct gcagagcctg accgtccgcg ccggcggttc cgtggactcc atcgagttca 240
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 gcaacgtccg gaagctcgat cttggcgacg ctgaatacgt caaggaagtt tctggaacgt 360
 acggcgcatt cgaaggtgcg actaccctta cctcggtcag gattgtcacc agcaccgtca 420
 gagcttggg 429

<210> 3841
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H11

<400> 3841

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tatgtccctt ggtctttctg caagtgtgc tacggcgacc attttcccac aatgctcaca 120
agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt cggtatgtga 180
aaacccaatt cttcaaccct ataggatcca acaggcaatc gcagctggca tcttaccttt 240
atcaccttg ttcctccaac aatcatcagc cctattacag cagttacctt tgggtgcattt 300
attggcacia aacatcaagg cacaacaact acaacaactt gtgctagcaa accttgcttg 360
ctactctcag caacaagagt ttcttccatt caaccaacta gctgcattga actctgcttt 420
ctatttgcaa caacaacaac ta 442
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<210> 3842
 <211> 419
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-009-Q1-K1-H2

<400> 3842

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gaaggctata gccgaaatat ttgctgacgc tgggttttca gatgttacia agaatttctt 120
ggctgtcctg gcggacaatg gcaggctgaa atatattgaa cgcattgcgg agagatttgt 180
tgatttgact atggaacata agggggagat gaaggttgtg gtcaggacag ttatttcact 240
caccaaggag gaggagaaag aactcaagga aaccttgacg gatatccttg gggaaaacia 300
aactatcttg gttgaacaga agattgacta cagcatcatg ggaggattag tgattgaatt 360
cgggcagaaa gtgcttgata tctcaatcag gaacaggcgg aagcanatgg aggcgttct 419
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<210> 3843
 <211> 457

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H3

<400> 3843

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ctaacaccaa tggctaccaa gatattggcg cgtccttgcg cttcttgccc ttttagtgag 120
cgcaacaaat gcgttcatta ttccacagtg ctcacttgct cctagtgccca ttattccaca 180
gttcctccca ccagctactt caatgggctt cgaacatcca gccgtgcaag cctacaggct 240
acaactagcg cttgcagcga gcgccttaca acaaccaatt gcccaattgc aacaacaatc 300
cttggcacat ctaaccctac aaaccattgc aacgcaacaa cgacaacaac aacagtttct 360
gccatcactg agccacctag ccgtgggtgaa ccctgtcacc tacttgcaac agcagctgct 420
tgcattcaac ccacttgctc tggcgaacgt agctgca 457

<210> 3844
<211> 287
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H5

<400> 3844

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ccttatgctc cttgggtcttt ctgcaagtgc tgctaccgca accattttcc cacaatgctc 120
acaagctcct atagcttctt ttcttcccc atacctctca ccagcgggtgt cttcagtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagcag gcattcttacc 240
tttatcacc ttgttctctc aacaaccgtc agccctatta cagcagt 287

<210> 3845
<211> 298
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H6

<400> 3845

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atttgctgac gctggggtttt cagatgttac aaagaatttc ttggctgtcc tggccgacaa 120
 tggcaagctg aaatatattg aacgcattgc cgagagattt gttgatttga ctatggaaca 180
 taatggggaa atgaaggctg tggtcaggac agctatttca ctcaccaagg acgaggagaa 240
 agaactcaag gaaaccttgc aggatatcct ttgggaaaac aaaactattht tgggttaa 298

<210> 3846

<211> 250

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H7

<400> 3846

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 catcgcgcac ttcgtggtga aggagccgat ggtgatccgg caccagtgcg cgggcgtggt 180
 cgaagaggtg ggcgccggcg tgacgcacct gtccgtgggc gaccgcgtgg cgctggagcc 240
 gggcgtcagc 250

<210> 3847

<211> 385

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-H8

<400> 3847

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 tatgtacaac aacaacaact actaccattc agccagctag ctgctgtgag ccctgctgcc 180
 ttcttgacac agcaacattt gttgccgttc tacctgcaca ctgcgcctaa cgttggcacc 240
 ctcttacaac tgcaacaatt gctgccattc gaccaacttg ctttgacaaa cccagcagtg 300
 ttctaccaac aacctatcat tgggtgtgcc ctctttttaga ttgcttatga gttatagttc 360
 aataataaag ttttttttgc tgatt 385

<210> 3848
<211> 420
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G3

<400> 3848

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tgaagacttc taaacttaag ggtgttctgc actgggttgc tgagccagca cctggtgtcg 180
aaccattgaa ggtggaagta agactattcg agaaattggt catgtcagag aatcctgctg 240
aattggagga ttggcttggg gatcttaacc cgcactcgaa agaggtgata aaggacgctt 300
atgctgtacc atcgcttgcc actgcagttc ttggcgacaa gttccagttt gagcggcttg 360
gttacttagc cgtggacacg gactccacta ctgagaagct cgtgttcaac agaactggca 420

<210> 3849
<211> 240
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F1

<400> 3849

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tcttaccata tctcattatc ccacaattct cacaaccttc tatatctcca cttactacca 120
catacttctc aacaccttaa tcaacaatat cacaacctc aatttcacaa ccatacatta 180
tccaacatac acatcacatc aaacaatctt acctttatca ccctttttac tccaacaacc 240

<210> 3850
<211> 256
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F10

<400> 3850

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gctagttaaa tgggtcagggc ctcagaacgt acagcattca tactttatct attctagcca 120

tagcgttatac gcattcaaca actaatgctt aaaactataa taattattac acatctaaca 180
ctactaacca tcataacgca tacataacat cagttcttat catacttgac caattacaat 240
tggtgaactt taccat 256

<210> 3851

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F11

<400> 3851

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ccaggcgatc ttccggttgg tctccagtc catcctgcag cagcagccgc aaagcggcca 180
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gcagccgact ccatgcccct acgctgctgc cggcggtgtc cccactgaa gaaactatgt 300
gctgtagtat agccgctggc tagctagcta gttgagtcac ttagcggcga tgattgagta 360
ataatgtgtc acgcatcacc atgggtggca gtgtcagtgt gagcaatgac ctgaatgaac 420
aat 423

<210> 3852

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F2

<400> 3852

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agaatcatca gccctattac agcagttacc tttggtgcat ttattggcac aaaacatcag 120
ggcacaacaa ctacaacaac tcgtgctagc aaaccttgct gctactctc agcaacagca 180
gttacctttg gtgcatttgt tggcacaaaa catcagggca caacaactac aacaactcgt 240
gctagcaaac cttgctgctt actctcagca acaacagttt ctgccattca accaactagc 300
tgcatggaac totgctgctt atttgcagca acaacaacta ctaccattca gccagctagc 360

tgctgcctac ccccggaat ttcttcatt caaccaactg gcagcattga actctcatgc 420
 ttatgtacaa c 431

<210> 3853
 <211> 428
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F3

<400> 3853

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 gattcgtgga gaatgctgtg gaggttgtgg agcatttagc tgaagtaaca gagaagctag 180
 ctgcgaatgt ggctaagcaa ctctctgaag atgggtctct gcagaaagca gtggaagagg 240
 ttgaacacat tgctgaggta gtggatgatg atgcggagaa tgttgaagca gtcactgaaa 300
 agatcgacaa ggtcagtgat gagattgatg ctgctgtgga gccggtcatc gcggaacttg 360
 aataggaact cgatcagagc acaacctcag acgatggagt tgacacatag aattgatcaa 420
 ctgcatgt 428

<210> 3854
 <211> 286
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F4

<400> 3854

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 cagaaataag aagttacatt tccagattcg aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaaaaaaaa ctaaaaaaaa aaataaaact aacaataaaa acacctatta 240
 caactgaaac aatagactga caataaacca acttaaaata aactaa 286

<210> 3855
 <211> 423

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-F5
 <400> 3855

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 acaagctcat atagcttccc ttcttcccc atacctctca ccagcgccgt cttcaatgctc 180
 tcaaacccca attgttcaac cttacaagat ccaacaggca atcgcaacac gcatcttacc 240
 attatcacc ttgttctctc aacaactcgc acccctatta cagcagctac ctctgggtcca 300
 tttgatggca caaaacatca gggcacagca actacaacaa ctctgtgctag caaaccttgt 360
 tgcatactct catgaacatc agtgtcttcc attcaaccaa atggctgcat tgaactctgc 420
 tgc 423

<210> 3856
 <211> 369
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-F6
 <400> 3856

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 ctctctgtct tatttacagc agcaacaact actaccattc agccagctag ctgggtgtgag 120
 ccctgtctacc ttcttgatac aaccacagtt gttgccgttc taccagcacg ctgcgcctaa 180
 cgctggcacc ctcttacaac tgcaacaatt gctgccattc aaccaacttg ctttgacaaa 240
 ccagcagcg ttctaccaac aacctatcat tgggtggtgcc ctctttttaga tttcttatga 300
 gttataggtc aataataaag ttttttgtct gatgtttgtg gcttcccaga aataagaaag 360
 tacatttct 369

<210> 3857
 <211> 404
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-F7

<400> 3857

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tattacacag ttacctttgg tgcatttatt gcacaaaaca taggcacaca actacaacaa 120
cttgagctat caaaccttgc tgctacttca cacagcacat tcttccattc aaccaatact 180
gtatgaactc tgctcttatt tgcaacacaa caactaccat tagcagctat ctgctgccta 240
ccccagcaat tattccatta agcactgaca cattgaacta tctgcttatt acagctgcac 300
agctactacc attcaccagc taactggtgt gagcacctgc taccttatga cacaaccaca 360
gttgacgacg ttctaccaac acgctgtgct taacgctggc accc 404

<210> 3858

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-F9

<400> 3858

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ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
tttatcacco ttgttctctc aacaatcatc agccctatta catcagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
tgctactct cagcaacagc agtttcttcc atccaaccaa ctagctgcat tgaactctgc 420
ttcttatttg caacaacaac aacta 445

<210> 3859

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G1

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cggccaagat attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt 120
 tcattattcc acagtgtca cttgtccta gtgccagtat tccacagttc ctcccaccag 180
 ttacttcaat gggcttcgaa catccagccg tgcaagccta caggctacaa ctacgcgttg 240
 cggcgagcgc cttacaacaa ccaattgccc aattgcaaca acaatccttg gcacatctaa 300
 ccctacaaac cattgcaacg caacaacaac aacaacagtt tctgccatca ctgagccacc 360
 tagccgtggg gaacctgtc acctacttgc aacagcagct gcttgcaccc aaccacttg 420
 ctctggcgaa cgt 433

<210> 3860

<211> 375

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G10

<400> 3860

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 ttcgggtccc ctccccctc cgcgtccac aacctcgag aagcttcac cctccccctc 120
 tgcgtcgccg ccagagccgc ggaaacccta cccaccccg cgcgtcacgc accgggcgcc 180
 cgcagccgcc ggtcgctgc ctgccgccga cgccgccccaa agcgattgga tctcgagatc 240
 gtcaggagcc acgatggagg actgggattc tgaagaattc cagccagttg tgctgttgt 300
 gaaagccgag ccacttaaaa atcagtgggc tgatgaagat gttgaagaag atgatgtaaa 360
 agaatcatgg gaaga 375

<210> 3861

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-G11

<400> 3861

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 ccttatgtc cttgggtctt ctgcaagtgc tgctaccgca accattttcc cacaatgtc 120
 acaaagtcct atagcttctt ttcttcccc atacctctca ccagcgggtgt cttcagtatg 180

tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagcag gcatcttacc 240
 tttatcacc ttgttcctcc aacaaccgtc agccctatta cagcagttac ctttgggtgca 300
 tttgttggca caaaacatca aagcacaaca actacaacaa cttgtgctag gaaaccttgc 360
 tgcctactct cagcaacagc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 420
 tgcttatttg caacaacaac taccat 446

<210> 3862
 <211> 384
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-G12
 <400> 3862

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 gtcgatctca tgaaaagtgt gaactttgat gcctaccggt tctcaatctc atgggtccagg 180
 atcttcccgg atggcgaagg gaaagtcaat ccagaagggt tagcgtatta caataatttg 240
 ataaactatc tgcttcagca aggcattgact ccttacatca acctttacca ctatgatctt 300
 cctcttgccg ttgagaagaa atatggaggg tggttaagcg cgaagatggc ggacttgttt 360
 acagactatg ctgacttctg gttt 384

<210> 3863
 <211> 434
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-G2
 <400> 3863

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 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
 tttatcacc ttgttcctcc aacaatcatc agccctatta catcagttac ctttgggtgca 300

tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcctactct cagcaacagc agttttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caac 434

<210> 3864

<211> 452

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E9

<400> 3864

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 ttttgcgctc cttatgctcc ttggtcttcc tgcaagtgtc gctacggcga ccattttccc 120
 gcaatgctcg caagctccta tagcttccct tcttcccccg tacctctcac cagcgggtgc 180
 ttcggtatgt gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcacagctgg 240
 catcttacct ttatcacctc tgttcctcca acaatcatca gccctattac atcagttacc 300
 tttggtgcat ttattggcac aaaacatcag ggcacaacaa ctacaacaac ttgtgctagc 360
 aaaccttgct gcctactctc agcaacagca gtttcttcca ttcaaccaac tagctgcatt 420
 gaactctgct tcttatttgc aacaaccacc ac 452

<210> 3865

<211> 297

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D5

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 tatgctcctt ggactttctg caagcgtga tacagcgacc attctccgc aatgctcgca 120
 agctcctata actgaccttc ttccaccgta cctctcacca gcggtgtctt cgggtatgtga 180
 aaacccaatt cttcaacctc acaggatcca acatgcaatc acagctggca tcttaccttt 240
 atcacccttg ctctacaac aatcatcagc cctattacat catataccta aggagca 297

<210> 3866
 <211> 346
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-D6

 <400> 3866

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 gtcccgtga gtgaacagga agaccttatt gtgtggatga ggacatacgc tctcccaaaa 120
 tttcgaaagc tctatggtgt gattgaagac gacctgcatg ccgatgagac cataaatatt 180
 ttcgtaggaa acaattacaa cacctacact tttggtggaa agaagagcat agtcctgacg 240
 actgcgtcct ggctaggcgg ctagaacgac ttacttggac acgctcatat tgtcactggc 300
 tcgatgagca tcatcatatc gatactctta gctctgatcc atgtga 346

<210> 3867
 <211> 427
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-D7

 <400> 3867

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 ccttcgtccc gcaccctgct gcggtcgctc catctttcca ccaccacccg gcggcggttg 180
 ctcaggctgg aaagtctgct ccgtaccca gctaccgcc gacggctgctg ttctggcagt 240
 ggataccgcc gacgtccctc gacacgacca aggacccgcg aactggccg ccggtcgcct 300
 agccgacctc ccacctcacc gtggcatcat ttatcggtga tgcgttgccg tgtgtactga 360
 atttgatcga agcatgcctg aaaaaagaaa ccttggtctg tgctcgtgct aaggacgtga 420
 tgtgctg 427

<210> 3868
 <211> 309
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-D8

<400> 3868

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tggtgctacc gcaaccattt tcccacaatg ctcacaagct cctatagctt cccttcttcc 180

cccatacctc tcaccagcgg tgtcttcaat gtgtgaaacc ccaattgttc aaccctacag 240

gatccaacag gcaatcgcaa caggcatctt accattatca cccttggtcc ttcaacaacc 300

gtcagccct 309

<210> 3869

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D9

<400> 3869

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agctcgcggc gctgatggcg gcccaggtag cgcagcagct gacggcgatg tgccgcctgc 120

agctgcagca gccaggctcc tgcccttgca acgcagctgc cggcgggtgc tactactgag 180

gaaactatgt actgtagtaa taatgtaatg gagccgctga ctagctacct agctcgctag 240

tttactcatt tagcggcgat gagtaacgta gtgtcaccca tcaccatggg tggcagtggt 300

agcaatgacc tgaatgaacc attgaaatgg aaaggaataa tatataagga aaaaagatga 360

ttgg 364

<210> 3870

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E1

<400> 3870

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agttgcctac agtcaaatcg gacacaccga tgggtgctac atctatacca ccacagtcac 180

ctgagagaaç aaaggcatta tggactagat taatgagaag ctgtatggac agtactgaac 240
 tgaggctata catggctgag ctggctctgtg atgtcgcttg acttgcgaaa tgttcagtgg 300
 aggatagatg ataacatcca cccatgagtt ggtgcccata ccttggatca tgtgacaagg 360
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<210> 3871

<211> 256

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E10

<400> 3871

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 cctaaggctg gcacctctt acaactgcaa caattgctgc cattcaacca acttgctttg 120
 acaaaccag cagcgttcta ccaacaaccc atcattgggtg gtgccctctt ttagatttct 180
 tatgagttat agttcaataa taaagttttt tgtctgatgt ttgtggcttc ccagaaataa 240
 gaaagtacat ttctag 256

<210> 3872

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E11

<400> 3872

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 caacaactac aacaacttgt gctaggaaac cttgctgcct actctcagca acagcagttt 180
 cttccattca accaactggc tgcattgaac tctgctgctt atttgcaaca acaactacca 240
 ttcagtcagc tagctgctgc ctacccccag caatttcttc cattcaacca actggcagca 300
 ttgaactctg ctgcttattt acaacagcaa cagctaccac cattcagcca gctagctgat 360
 gtgagccctg ttgccttctt gacacaacaa cagttg 396

<210> 3873
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E2

<400> 3873

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 aggatattag ccctccttgc gcttcttggc ctttttagtga gcgcaacaaa tgcgttcatt 120
 attccacagt gctcacttgc tcctagtggc agtattccac agttcctccc accagttact 180
 tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcgggc 240
 agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
 caaaccattg caacgcaaca acaacaacaa cagtttctgc catcactgag ccacctagcc 360
 gtggtgaacc ctgtcaccta cttgcaacag cagctgcttg catccaaccc acttgctctg 420
 gcgaacgtag ctgcat 436

<210> 3874
 <211> 384
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E3

<400> 3874

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 aggtttctatc ctatcttccc cttctagctc tctaattgag ccattcaact gcgacatta 120
 tttcataatg cttacttcat tactaatgcc tggcattcca cagtttcacc aaccatctac 180
 ttcaacaatc tatatacatt caacctatct aacctacaag ctacaactaa cgcttgcat 240
 tagcgcctta caacaaccaa ttgcccaatc cctacaacaa tacttgtcac atctaaccct 300
 acaaaccatt tcaactcaac aacaacaaca acagtctctc ccatcaatca accacctatc 360
 cacggtcaac cctctcacct actt 384

<210> 3875
 <211> 433
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E4

<400> 3875

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gcgtccttgc gcttcttgcc ctttttgtga gtgcaacaaa tgcgttcatt attccacaat 120
gctcacttgc tccgagtgcc attattccac agttctctcc tccagttact tcaatgggct 180
tcgaacaccc agctgtgcaa gcctataggg tacaacaagc gcttgcgggc agcgtcttat 240
aacaaccaat tgcccaatta caacaacaat ccttggcaca tctaaccata caaacatct 300
caacgcagca gcaagcactg agccacctag ccgtggtgaa ccctatcgcc tacttgcaac 360
aacagctgct tgcaccaaac ccacttgctt tggcaaagct agctgcatac caacaacaac 420
aacagttgca aca 433

<210> 3876

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E5

<400> 3876

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gctgtagtat agccgatggc tagctagcta gttgagtcatt ttagcggcga tgattgagta 120
ataatgtgtc acgcattacc atgggtggca gtgtcagtgt gagcaatgac ctgaatgaac 180
aattgagatg aatgaacaa aattaatgag aagctgtatc gacagcactg aactgaggct 240
atacatggct gaacttggat gagacctcgc ttgaaatgcg aaatgctccg aggtggatac 300
atattaacat ccaccataa ataaggggcc cctatcttgt gatcatgtga ctacggatag 360
aggcagttta cctgctgaac aatttttttt 390

<210> 3877

<211> 328

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E6

<400> 3877

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acacgaatta ttaattatct tgcagggcac tccgtcacia tcaccatcat tattgaccgc 120
agcaccaatc tccatgcaat cgctactact agtgggtggat catcgacaac acctgtgacc 180
cggagattaa acacatggca atcgcaggat ggccacatgc agctgcacgc aactgatctc 240
tgatttgctg ttagatggcg gagcctacag ctactccca gatgccgacc tccatgaacc 300
cgtcctcggg ggccgagccc cggaacat 328

<210> 3878

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-E7

<400> 3878

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tttcgtgggt gagcggatcg agatggcggc gtcggatggt gagtaccgct gcttcgtcgg 120
cggcctcgcc tggggcacgg acgaccactc cctccacaac gccttcagca cctacggcga 180
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gctggacggc cgcaacatca ccgtcaacga ggcccagtcg cgcggcgggc gtggaggcgg 360
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<210> 3879

<211> 441

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-E8

<400> 3879

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gtgttgctcg ttgccctcgc tctcctggct ctcgctgcga gcgccacctc cacgcataca 120
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ccacctccgg ttcacctgcc acctccggtg catctcccac cgccggtcca cctgccgccc 240
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 tgccactacc ctaactaacc agcccggcct cagcctcatc cccagccaca cccatgcccc 360
 tgccaacagc cgcattcaag cccgtgccag ctgcagggaa cctgcggcgt tggcagcacc 420
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<210> 3880

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D4

<400> 3880

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 agccgcagtc ctccggcgaag agatagattg cgcagtgaac gtgcacccca ccgcagtcgc 180
 agccggagcc gcagcccata ccgtcgcaga gaacggcgtg gtcacaggga ttttgcatgc 240
 aagaactgcc ggagacctgg gcacttcgct aaggagtgtc catctgcgcc tatgtgcaat 300
 aactgtaacc ttccaggcca ctttgagca gaatgcacct taaaaactgt ttgctggaac 360
 tgcaaagagt ctgggcacat tgccagtgag tgcaagaacg aggcctatg ccacgcctgc 420
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<210> 3881

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D7

<400> 3881

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 gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtg cttcgggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240

tttatcacc ttgttcctcc aacaatcatc agccctatta catcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcctactct cagcaacagc agttttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg c 431

<210> 3882
 <211> 327
 <212> DNA
 <213> Zea mays
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 <400> 3882

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 aactatgaca gttggtaaata tactttacag atttatgccg gatagtatat tcacgacatt 180
 cctctcaacc atgacgatgc acaagcaagc acacagttac aagcaagcca gtattatgga 240
 agcagcatag catggcattt caatcatctt tctgatgtaa agcagcagct agactattac 300
 cattcagtgc ggcattggtag actcgtc 327

<210> 3883
 <211> 426
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-D9
 <400> 3883

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 gcaacattgg caccggattg gccaaaggctg gttttgctgg ggacgatgca ccaagggcgg 180
 ttttccttag cattgttggc cgtcctggcc aactgggtgt catggtaggg atgggacaga 240
 aggatgcata tggtgccaat gaggcacagt ccaggaaagg tattctaacg ctcaagtacc 300
 cgattgagca cgggtatttg agcaactggg atgacatgga gaaaatctgg catcatactt 360
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tgaacc

426

<210> 3884
<211> 441
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E1

<400> 3884

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cctatagctg cccttcttcc ccatacctt ccatcaatga ccgctttagt atgtgaaaac 180
ccagcccttc aaccctacag gatccagcaa gcaatcgcaa caagcaactt acctttatca 240
cacctgttct ttcaacaatc gccagcccta tctttggtgc agtcattggt acaaaccatc 300
agggcagaac agttgcagca actcgtgcta ccagtgatca gccaaagtagc tctggcaaac 360
ctttccccct actctcaaca actactacca ttcagccagc tagctgatgt gagccctgct 420
gccttcttga cacaacaaca g 441

<210> 3885
<211> 330
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E10

<400> 3885

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accatctctg actcaactag ctgtggcaaa ccctgtctcc tacttgcaac agctgcttgc 180
attcaaccaa ctgactttgt cgaagtctgc tgcgtactta caacagctac atcagtcact 240
taatccattg ttagtggcta taccactgat tggctgaata ccaactgcgtc aactattgct 300
gccatacaag cagttctcta tgatgaattc 330

<210> 3886
<211> 427
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E11

<400> 3886

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ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccaacgg tgtcttcggt 180
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gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttggtc tagcaaacct 360
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tgcttct 427

<210> 3887

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E12

<400> 3887

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ggcggggaac cagctgcgcc acgccacacc cgggctcggc atcgccatcg tcgccttcgg 180
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cactggtgct ggtgatgttt ttacagtttt gagctcataa ggtcagccat gaccatattg 360
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gttaat 426

<210> 3888

<211> 447

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E2

<400> 3888

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tctttcttag atcgtgaagg taggattatg gattcaaagg cactgaggaa aaaggttttc 180
tatgggggag ttgatcatgc tttgagaaaa gaggtctgga aattcttgtt ggggtatcat 240
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gaagtcataa aatctcagtg gaagagtatc tcagccaccc aagctaaaag attcaccaag 360
tttagggaaa gaaaaggcct aattgacaaa gatgtggtga gaacagatag gtccattccc 420
tattatgaag gagatgacaa tcagaat 447

<210> 3889

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E4

<400> 3889

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gccagacacc accgtttcat ctaccgcctc cgttctatat gccgcctccg ttctatctgc 180
cgccgcagca gcagccgcag ccatggcaat accccactca accaccgcag ctaagcccgt 240
gccagcagtt cggatcctgc ggcgtcggca gcgtcggcag cccgttcctg ggccagtgcg 300
tcgagttcct gaggcaccag tgcagcccgg cggcgacgcc ctacggctcg ccacagtgcc 360
aggcgctgca gcagcagtgc tgccaccaga tcaggcaagt ggagccgctg caccggtacc 420
aggcgacata cgggtgtggtc ct 442

<210> 3890

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E6

<400> 3890

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tcatgatgga gcagaacagg caggtgcgga tggatgacct catcggctcc tcctcgtccc 180
cgaggccact gcaactgacg ccagtccctg tagcgactgg gccgccgccg gcggctgcct 240
gggagaccga cgccggcgct aggactttgc cgctgttccc cgtccgcaat agcagtagca 300
cggagatcat caggccagag catgaggcca aggccaccct aaccatcttc taccatggcc 360
aggtggcaac gttccacaac ttcccggcag acagagccaa agaccttata caaat 415

<210> 3891

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E7

<400> 3891

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atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcta ctctcagcaa 180
cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta tttgcaacaa 240
caacaactac cattcagcca gctacctgct gcctaccccc agcaatttct tccattcaac 300
caactggcag cattgaactc tcctgcttat ttacagcagc aacaactact accattcagc 360
cagctagctg gtgtgagccc tgctaccttc ttgatacaac cacagttggt gccgttctac 420
cagcacgctg cgctaacgc 440

<210> 3892

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E8

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tctgcttctt attcgcaaca acaacaacta ccattcagcc agctacctgt tgcctacccc 120
 caacaatttc ttccattcaa ccaactggca gcattgaact ctctgctta tttacagcag 180
 caacaactac taccattcag ccagctagct ggtgtgagcc ctgctacctt cttgacacaa 240
 ccacagttga tgccgttcta ccagcacgct ggcgctaacg ctggcaccct cttacaactg 300
 caacaattgc tgccattcaa ccaacttgct ttgacaaacc tagcagtgtt ctaccaacaa 360
 cccatcattg gtggtgccct ctitttagatt tcttatgagt tatagttcaa taataaagtt 420
 taacgtctga tgttt 435

<210> 3893

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-E9

<400> 3893

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 ccagacacca ccgtttcatc taccgcctcc gttctatatg ccgcctccgt tctatctgcc 180
 gccgcagcag cagccgcagc catggcaata cccactcaa ccaccgcagc taagcccgtg 240
 ccagcagttc ggatcctgcg gcgtcggcag cgtcggcagc ccgttcctgg gccagtgcgt 300
 cgagttcctg aggcaccagt gcagcccggc ggcgacgccc tacggctcgc cacagtgcc 360
 ggcgctgcag cagcagtgtc gccaccagat caggcaggtg gagccgctgc accggtacca 420
 ggcgacatac ggt 433

<210> 3894

<211> 440

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F1

<400> 3894

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 aacaatggct accaagatat taccctcct tgcgttctt gcgctttttg cgagcgcaac 120

aaatgcgtcc attattccac aatgctcact tgctcctagt tccattattc cacagtctct 180
 cccaccagtt acttcaatgg ccttogaaca cccagctgtg caagcctata ggctacaaca 240
 agcgattgcy gcyagcgtct tacaacaacc aattgcccaa ttgcaacaac aatccttggc 300
 acatctaaca atacaaacca tcgcaacgca acagcaacaa cagttcctac cagcactgag 360
 ccacctagcc atggtgaacc ctgtcgcta cttgcaacag cagctgcttg catccaaccc 420
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<210> 3895

<211> 431

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-F10

<400> 3895

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 tattccacaa tgctcacttg ctccgagtgc cattattcca cagttcctcc ctccagttac 180
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 acaaaccatc gcaacgcagc agcaacaagc actgagccac ctagecgtgg tgaaccctat 360
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<210> 3896

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D6

<400> 3896

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 ccctcaatgc tcacaagctc ctatagcttt catatttgcc ccataccttc catcaattat 180

agctgcaata tgagaaaacc cagctattca accatatagg cttaaacaag caatctcagc 240
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gtcattggta caaaccatca gggctcaaca gctgctgcaa ctggtgctac ctctgatcaa 360
ccaagtagct ctggctaacc tttctcccta ctcttagcaa caacaatttc ttacattcaa 420
ccaactgtct aactg 436

<210> 3897

<211> 265

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C10

<400> 3897

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gctttgacaa acccagcagc attctaccaa caaccatca ttgggtgggtgc cctcttttag 180
atttcttatg agttatagtt caataataaa gttttttgtc tgatgtttgt ggcttcccag 240
aaataagaaa gtacatttct agatt 265

<210> 3898

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C12

<400> 3898

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tatttgcaac aacaattacc attcagccag ctagtgtgtg cctacccccca gcaatttctt 180
acattcaacc aactagcagc attgaactct gctgcttatt tacagcagca acaactacta 240
ccattcagcc agctagctga tgtgagccct gctgccttct tgacacaaca acagttgttg 300
ccgttctacc tgcaagctat gcctaacgct ggcaccctct tacaactgca acaattgctg 360
ccattcaacc aacttgcttt gacaaactca acagtgcttct accaacaacc catcattggg 420

ggtgccc

427

<210> 3899
<211> 438
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C2

<400> 3899

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ataagcggca acccccgtgc actgcgcggg ctgcgcacgg cgtgcgagcg cgccaagcgc 180
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tgcatggaac ctgtggagaa gtgcttgccg gacgccaaga tggacaagag cagcgtgcac 360
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ttcttcaacg gaaggaat 438

<210> 3900
<211> 447
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C3

<400> 3900

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cctatagctt ccttcttcc ccatacctt ccatcaatta tagcttcaat atgtgaaaac 180
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agggcacaac agctgcagca actcgtgcta cctctgatca accaagtagc tctggcaaac 360
ctttctccct actctcagca acaacaattt cttccattca accaactgtc tacactgaac 420
cctgctgctt atttgagca acaacta 447

<210> 3901
 <211> 410
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C5

<400> 3901

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 caacaacaat tgcaacagtt tctaccagcg ctcaagtcaac tagccatggt gaaccctgcc 180
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 gcaaaccctg ctgcctactt gcaacagctg cttccattca accaactgac tgtgtcgaac 360
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<210> 3902
 <211> 461
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C6

<400> 3902

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 aacaacaatt tcttccattc aatcaactag ctggggtgaa ccttgctgct tacttgcagg 360
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<210> 3903
 <211> 356
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C7

<400> 3903

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gatcaaggag atgttcttgc ccatatctta ttgcagaatt tcttggggaa accctagggtg 180
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tcaagggaag tgggaagtag cagcacatgc accttcactc tcataataac gctgcttagg 300
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<210> 3904

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C8

<400> 3904

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tgcaacaaca attaccattc agccagctag ttgctgccta cccccagcaa tttcttccat 180
tcaaccaact agcagcattg aactctgctg cttattttaca gcagcaacaa ctactaccat 240
tcagccagct agctgatgtg agccctgctg cttctcttgac acatcaacag ttgttgccgt 300
tctacctgca cgctatgcct aacgctggca ccctcttaca actgcaacaa ttgctgcat 360
tcaaccaact tgctttgaca aactcaacag tgttctacca acaaccatc attggtggtg 420
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<210> 3905

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-C9

<400> 3905

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 caatgctcgc aagctcctat agcttccctt cttcccccg acctctcacc agcggtgtct 180
 tcggtatgtg aaaaccaat tcttcaacc tacaggatcc aacaggcaat cgcagctggc 240
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 ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacaacaa gtttc 395

<210> 3906

<211> 442

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D1

<400> 3906

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 caagctccta tagcttccct tcttcccccg tacctctcac cagcggtgtc ttcggtatgt 180
 gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct 240
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 gcctactctc agcaacagca gattcttgca ttcaaccaac taggttcatt gaactctgct 420
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<210> 3907

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D10

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agctatggct aggctggcgg taccagcgag gtcgtcatca gatgagggct gcggacaggg 180
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<210> 3908

<211> 127

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D12

<400> 3908

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 gaccatg 127

<210> 3909

<211> 397

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-D2

<400> 3909

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 cgtggaggga aggccatccg accagctggg caggagaaac ctactgaca gccccgtatt 180
 tgacggccgt ggccctgacg ccagcctcgt ggctcgcgta cagggagtcg ctaccagat 240
 gggcgacgtg cgccagttgt acaccgtcgt gttccatgag aggccgatca agggctccac 300
 gtcgtcacc gaacgcgcga tgacagaagg gtcagacgag tgtgcatct acggtggaac 360
 tggagtgttc gcgatggcga gaggcgtcat aaggaga 397

<210> 3910

<211> 450
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-D3
 <400> 3910

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 ctattattcc acaatgctca caacaatacc tctctccggt gacagccgcg agatttgaat 180
 acccaactat acaatcctac aggctacaag agggccatcgc agcaagcatc ttacggtcgt 240
 tagcattgac cgtccaacaa ccatatgccc tattgcaaca accatcctta atgaatctat 300
 atctccaaag aatcgagca caacaactac aacaacagtt gttccaaca atcaatcaaa 360
 tagttgcagc gaaccttgct gttacctcc agcaacaaca atttcttgca ttcaatcaac 420
 tagctggcgt gaacctgct gttacttgc 450

<210> 3911
 <211> 322
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-D4
 <400> 3911

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 acgcttatat aactatgctt ataacaatgt acctctcacc agacgtgtgt tagatatgtg 180
 taaacccctt tactatacta cagcgatac aacaggctat cacagatggt atcacagctg 240
 tatgaaccgt gctgctacca cacttatgag ctatagtaca tgagatacct aaggagcata 300
 tatcggcaca gaacatcagg gc 322

<210> 3912
 <211> 442
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-D5

<400> 3912

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catgaatata ctgcctgtct gttcagttca tctccggacg agacacgaat tgctgagtgc 180
aggtctgttc atgccaaaat cgtacaagaa tgagagggtg gagctgataa gcataatata 240
tgtacggatt tatgctctgg atgtggagac aagtagaaag tggtttctgg agcattaagt 300
tgtcttcatg agattcagcc tattcaggtc atgtactcat gtggcacagc ctagaggacc 360
aactgaccaa taataactaaa gcacatagga tgttttagttt tctgatttta attttggaa 420
tctatccaaa tatagactct tt 442

<210> 3913

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-B9

<400> 3913

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aaaaacgccg tacacatgga gggagctctt cgcggcgaaa aaagagaaac agaaggaagt 180
tgaggataag atgcttgaca aattcacaaa gaagtttcag gcagagagag ctgagaaaca 240
aagcaagcaa atcaaactat gtacaaaggt gcctccaagc agcaaaagga gtttctttgg 300
aggaagtgga cctagcagtg tatccagttc cagctacaag agccctatac tgaagaaggc 360
taggatagag gttaacagtc gagcaagatt gcagtctgct atgcaaaaga atacttttgc 420
gaggtcatct cagcc 435

<210> 3914

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A12

<400> 3914

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 caatgctcac aagctcctat agcttccctt cttcccccat accttccatc aatgatagct 180
 tcagtatgtg aaaaccacgc ttttcaacct tataggctcc aacaagcaat cgcagcaagc 240
 aacatacctt tatcaccctt gtttcaacaa tcgccagccc tatctttggg gcagtcattg 300
 gtacaaacca tcaaggcaca gcagctgcag caactcgtgc tacctgtgat caaccaagta 360
 gctctggcaa acctttctcc ctactatcag caacaacaat ttcttccatt caaccaacta 420
 tctacactga ac 432

<210> 3915

<211> 318

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A2

<400> 3915

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 acatcataca accaaactgc tatggtagaa ctataactca cttgcacatc tagaccaggg 120
 caccaccgac gcagaggcgt tggtagtatg catggtgcta tcgtgctact agtgctatgt 180
 ttgcgagcat gctgcaacca tttacttaaa ttgactctct tcatccaacc gtgctagcct 240
 tcaggctaca actagaagct ttctgcaggg tcttaaaact atgaattgtc ctattgcaac 300
 aactattatt ggcaaaga 318

<210> 3916

<211> 268

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A3

<400> 3916

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 caattttacc tcattgctaa caagctccta tagcttccct tgttcccca taccttccat 180

caatgatagc tcaagaatgt gaaaccccag cttttcaacc ttttaggctc caacagcgca 240
 ttggcagcag gcaccatacc tttatcac 268

<210> 3917
 <211> 437
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-A4
 <400> 3917

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 caccgtttca tctaccgctt ccgttctata tgccgcctcc gttctatctg ccgccgcagc 180
 agcagccgca gccatggcaa taccctactc aaccaccgca gctaagcccg tgccagcagt 240
 tcggatcctg cggcgctcggc agcgctcggc gcccgcttct gggccagtgc gtcgagttcc 300
 tgaggcacca gtgcagcccg gggcgacgc cctacggctc gccacagtgc caggcgctgc 360
 agcagcagtg ctgccaccag atcaggcaag tggagccgct gcaccggtac caggcgacat 420
 acggtgtggt cctgcag 437

<210> 3918
 <211> 164
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-A5
 <400> 3918

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 cgatgattga gtaataatgt gtcacgcac accatgggtg gcagtgtcag tgtgagcaat 120
 gacctgaatg aacaattgaa atgaaaagaa aaaagtattg ttcc 164

<210> 3919
 <211> 443
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-A6

<400> 3919

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tgaaggcgcg ccagatcttt gacagccgtg gcaaccctac agtcgaggtc gacgtgtttt 120

gctcagatgg aacctttgca agggcagctg ttcccagtg agcatcaact ggtgtatatg 180

aagctctgga gttgagggat ggtggctctg actatattggg gaagggtgtc tccaaggctg 240

tgaacaatgt gaattctgtt attggacctg ctctgattgg caaggaccct acagcacaga 300

ctgagattga taacttcatg gttcaacaac ttgatgggac caaaaatgag tggggatggt 360

gcaagcaaaa gcttgggtgt aatgcgattc tggctgtgtc attagctgtt tgcaaagctg 420

.gggctagcat caagaggatt cct 443

<210> 3920

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A7

<400> 3920

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tcagctagct gtggcaaacc ctgttgcccta cttgcaacag ctgcttccat tcaaccaact 120

aactatgtcg aactctgttg cgtacctaca acagcgacaa cagttactta atccattggc 180

agtggctaac ccattgggtcg ctgccttcc acagcagcaa caattgctgc catacaaccg 240

gttctctttg atgaatcctg tcttgctgag gcagcaaccc atcgttggag gtgccatctt 300

ttagattaca tatgagatgt actcgataat ggtgccctca taccggcatg tgtttcctag 360

aaataatcaa tatattgggt gagattttatc tcgatatatt tctgaactat gttcatcata 420

taaataattg aaaacatc 438

<210> 3921

<211> 446

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A8

<400> 3921

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 tgagcgtcgg cgccaccccg gagacgacgt gcgcggcggc ggcgggccac gaccggcgcg 120
 tggactacgg cttctgcgtg tcgaggctga gccaccacca cgacagcccc gacgcggaca 180
 cctggggcct ggccaagggtg gccgccgacg tgggcgtcgc caccgccggg gacgccgtct 240
 acgacatcaa ggccctgctg gccaaagccgt cggccgacgc ccaggcgcgg gcggcgctgg 300
 agcagtgcc aaggctgtac gacgcggcg agatggcggt cgcgaggcg tacgacggga 360
 tcaaccggcg cgactacgc gcgggcaagg gcaaggccac ggaggcggt gcgctggccc 420
 gccggtgcga cgacgccttc gcgcgg 446

<210> 3922
 <211> 262
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-B1
 <400> 3922

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 agcggagccg gagaccggt aaggaaatta agaggcgctg atcgggcatg ggggtgcgacg 120
 acaagtgtg gtgcgccgtg ccgtgccccg gcggcaaaga ctgcaggtgc acgtcgggga 180
 gcggctggca acgggagcac acgacttgcg gctgccggga gcactgctag tgcagaccgt 240
 gcacgtgtgg tcgggccacg at 262

<210> 3923
 <211> 405
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-B11
 <400> 3923

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 ggcagcattg aactctgctg cttatttaca acagcaacag ctaccaccat tcagccagct 180
 agctgatgtg agcoctgttg cttcttgac acaacaacag ttgttgccgt tctacctgca 240

cgctgcgctt aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact 300
 tgctttgaca aaccaacaa cgttctacca acaaccatc attggcgggtg ccctctttta 360
 gattgcttat gagttatagt tcaataatga agtttttttg atgat 405

<210> 3924

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-B12

<400> 3924

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 ggaattcagt aaaaactggg cttccctacg ggagtaacgg ttatgattcc aggatatatg 120
 gtcgatgtgg tcttggtaat ggtatggata acagggtacag gccagggca ttagtggtat 180
 actatgggta tggcaatgag agtcaggatg gaacaattga gttaaacaga ggtcctagat 240
 ctgtccgggt caagatccag aaattgtacg gtcatactgt cactattgct gtgaaagggc 300
 agtctctacc ttctagtga agcaagaatg atagtgtgtg gcctgataga gcatagtaca 360
 attgagatga cttccctgtt cagtacgatg ctgcaaaggt ctttgtcatt aaatcgtaca 420
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<210> 3925

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-B2

<400> 3925

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 cacaacaata cctctctcgg gtgacagccg cgagatttga ataccaact atacaatcct 180
 acaggctaca agaggccatc gcagcaagca tcttacggtc gttagcattg accgtccaac 240
 aaccatatgc cctattgcaa caaccatcct taatgaatct atatctcaa agaatcgcag 300
 cacaacaact acaacaacag ttgcttccaa caatcaatca agtagttgca gcgaaccttg 360

ctgcttacct tcagcaacaa caattttcttc cattcaatca actagctggg gtgaaccctg 420
 ctgcttactt gcaggcacaa cagctactac cattc 455

<210> 3926

<211> 455

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-B3

<400> 3926

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 tctaccggtc atggcgtacg tcaacaagtg cgggtgctca ttgccatgcc ccggctgcta 180
 agactagctg tgcacgtaga tagcgtcatg cagcgggagc aactacttg cggtgccgc 240
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 aacaggatgg ctaactgctc ctgcgggtgcg ttctgcaact ggcatacctg cgcctactcc 360
 tgatacgtgc gctacgtct cgtgctaccg cgctgactaa tggaaggagc tgtctaata 420
 agatggacac gaagcatcta tcactacttt taata 455

<210> 3927

<211> 331

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-B4

<400> 3927

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 tgctgctata gctatccttg atgctcagaa cctataaact gaggtctctt ccgtatgtga 180
 aaaaccattg cttaatgact tcactatcct actagcaatc gcagctgaca tattaaccac 240
 atcaaccttg gtgatacaac aatcgatagc cctattacat gcagtaagat ttgctgcac 300
 gattgacaga tcatcatgac ggcacaacta c 331

<210> 3928

<211> 447
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-B8
 <400> 3928

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 gcggtctgcg ctgccagcca ccgccgcggg ttcattctacc gccgccggtg catctgccac 180
 ctccggttca cctgccacct ccggtgcata tcccacgcgc ggtccacctg ccgccgcggg 240
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 actaccctac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360
 aacagccgca tccaagcccc tgccagctgc agggaaacctg cggcggttggc agcaccgccga 420
 tcctggggcca gtgcgtcgag tttctga 447

<210> 3929
 <211> 301
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-028-Q1-K1-A11
 <400> 3929

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 gccgtcatgg ggcggtatgca caggccccggg aagggtatct tggccttagg gcctgccgga 120
 caaaaggacg cctcctacct ggctgaagac cgccgcttcg aacttgaaga ggatatcccc 180
 aaaggaaccc aaaaaggccc agatgccggg acatatgggg gtcttgctcc gagaccatca 240
 cgggtttcccc cttgtaaaga gtgcaaccga gagcaaaatt ctccgaatcc taagggccca 300
 t 301

<210> 3930
 <211> 245
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-009-Q1-K1-C1

<400> 3930

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* agcacgatca taacgccagc ccttacttca ctgcttccgc cgctgccgac ttcgggacat 120
gatccactgc tgctatagct cccgtcggtg ccagataccc gtttaccagc ctgattcaag 180
atgaggacaa cctcatcctt gaactcttcc tgctccagca agcaatcgca tacatcatgc 240
tgacc 245

<210> 3931

<211> 366

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-C10

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gtcgaaaaag gcaatggata acatgtggca cagcatttga tccgggtccc tgcgccttgg 180
tctgacatgg aattttacct tctttgtctg agcactataa tatttttagtc ctttcatatc 240
attggcctat cntagatct ttctatgttg ntgtgacaag ttctgcgaaa acgcattact 300
tgtgtttgct ttgtataacg ccgncgaaac aatcgaaacg gttcctttat cacctgctgn 360
tctggt 366

<210> 3932

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-C2

<400> 3932

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agatttttgc cctccttgcc ctccttgctc tttcagcaag cgctgctacc tcgactttta 120
ttccacaatg ctcacaacaa tacctctctc cggtgacagc cgcgggattt caatacccaa 180
ctatacaatc ctacatggta caagaggcca tccaagcaag catcttacgg tcattagcat 240

taaccctcca acaaccatat gctctattgc aacagccatc cttagtgcac ctgtatctcc 300
aaagaatcgc ggcacaacaa ctacaacaac agttgctacc aacaatcaat caagtagttg 360
cagcg 365

<210> 3933
<211> 343
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-C4

<400> 3933

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tgcttgccct ccttgccttt tcagcaagtg ttgctaccgc gactattatt ccacaatgct 120
cacaacaata cctctctcca gtgatagccg cgagatttga ataccatct atacaatcct 180
acaggctaca agaggccatc acagcaagca tcttacggtc gttagcattg accgtccaac 240
aaccatatgc cctattgcaa caaccatcct tagtgaatct gtatctccaa agaatcacag 300
cacaacaact acaacaacgg ttgcttccaa caattaatca agt 343

<210> 3934
<211> 361
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-C5

<400> 3934

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ccttatgctc cttggctctt ctgcaagtgc tgctaccgca accattttcc cacaatgctc 120
acaagctcct atagcttcct ttcttcccc atacctctca ccagcgggtg cttcagtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagcag gcattcttacc 240
tttatcacc cttgttctcc aacaaccgtc agccctatta cagcagttac ctttggtgca 300
tttgttgga caaaacatca aagcacaaca actacaacaa cttgtgctaa gaaaccttgc 360
t 361

<210> 3935
 <211> 259
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-C6

 <400> 3935

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 agtgccaggc gctgcagcag cagtgtgtgcc accagatcag gcaggtggag ccgctgcacc 180
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 agctcgccga gctgatggc 259

<210> 3936
 <211> 372
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-C7

 <400> 3936

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 gcaattgtga caccctcatc agttcctttt ttttctcgaa agcgcaagag agctgcgcga 180
 aaatatatta agaaggagat aaaggtccaa aaggacccca agatacatgg tacaaaaaag 240
 gctgccctac gaccctcatc agttccttga ttgcacagat caattagtgt ttgcatctta 300
 cgccattgtg aatcttggtt attcatatta tatcctgtca tgcaaaaatt taatatcaat 360
 ttgttcaaat gt 372

<210> 3937
 <211> 356
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-C8

 <400> 3937

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tcatgtcttt gaggagatgc agaggccggg taccgccgctc tacaacatca aggccttct 120
ccctgtcatc gagtcctttg gtttctccag ccaactgagg gccgcaacct ctggtcaggc 180
gttccccag tgtgtctttg accattggga catgatgggc tcagatcctt tggaggccgg 240
cttcaggct gctcagctgg tgctggatat ccgcaagatg aacggtctca aggaacagaa 300
gacctccctt tctgagtctg aagacaagct ctaaaatttt tggctgctgg tgatac 356

<210> 3938

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-C9

<400> 3938

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acaactacta ccattcagcc agctagctgg tgtgagccct gctaccttct tgatacaacc 180
acagttgttg ccgttctacc agcacgctgc gcctaacgct ggcaccctct tacaactgca 240
acaattgctg ccattcaacc aacttgcttt gacaaacca gcagcgcttct accaacaacc 300
catcattggg ggtgccctct tttagatttc ttatgagtta tagttcaata ataaagtttt 360
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<210> 3939

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D1

<400> 3939

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gagggtgatg ggattgacag gttggaaaaa ttaagtattg ggggcagaaa gcaggagaaa 180
gctttgagaa ataggtgctt tgggtgtaga gttgctgcaa ctacacaatg tattcttacc 240
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gatgcaaacc gtgtatctgc tatcattttg ggcggaggca ctggatctca gctctttcct 360
 ctgacaagca caagagctac gcctgctgta cctgttggag gatgttacag gcttattgat 420
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<210> 3940

<211> 379

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D10

<400> 3940

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 cctatagctt cttttcttcc ccctacctc tcaccagcgg tgtcttcagt atgtgaaaac 180
 ccaattcttc aaccctacag gatccaacag gcaatcgcag caggcatctt acctttatca 240
 cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggg gcatttggtg 300
 gcacaaaaca tcaaagcaca acaactacaa caacttgtgc taagaaacct tgctgcctac 360
 tctcagcaac aagcagttc 379

<210> 3941

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D11

<400> 3941

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 caatgctcgc aagctcctat agcttccctt ctcccccg acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacct tacaggatcc aacaggcaat cgcagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag ccctattaca acagttacct 300
 ttggtgcatt tattggcaca aaacatcaag gcacaacaac tacaacaact tgtgctagca 360
 aaccttgctg cctactctca gcaacagcag tttcttccat tcaaccaact aggttcattg 420

aactctgctt ct

432

<210> 3942

<211> 324

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D12

<400> 3942

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acataatgtg gcaaacattg ttgccttctt acaacaacaa caattgctgc catttagcca 180
acatgctttg acgaatccta ccaccttatt gcaatcgccc accattgggtg gtgccatctt 240
ctagattttt tatgatttat actgtaataa taaagttctc atgctgatat gtgcgacctc 300
tcagtaataa agtattatag atct 324

<210> 3943

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-D2

<400> 3943

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ttagtgccaa cgttgcta at gggtaaaga caggagaaaa cagcgacgag gaaagtgatg 120
cccaaagctt tggtagcaag agggatactg aaattcatag tggtgaggcg gtacaagata 180
ttcgtagaga tgaagtggct ggctcatcca aaaataacga actacaaaat aagtcttatg 240
atggagtaaa cacaaaagtg gatgtgtcaa aatataccaa tgggtgctcca agtggaagtg 300
agaagaatgt gcgggtccaaa tgccttaacg gtattacttc tgcaaagggtg gctgagcaaa 360
ttatggataa tgccttgagg atcacggatg caagttcacg ccgtccaaca aatcttggca 420
at 422

<210> 3944

<211> 262

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-D3

 <400> 3944

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 ctacttacac cgtacctctc accatcgatg ccttccatat tataaaaccc aattattcaa 120
 ccctacaaga tccaactggc aatctcagct atcatcttac ctatatcacc ctgctcctg 180
 caacaatcat caaccatact acatcagcta cctttggtac atatattaac acacaacatt 240
 aaggcacaac cactaccaca ac 262

<210> 3945
 <211> 388
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-B9

 <400> 3945

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 gtggaagatt gtggttgggc atcacaccat gaggagtgtg agtgagcacg gggacaccga 180
 ggagcttctg gaattactac ttccagtcct caaggacaat ggcgtcgact tctacatcaa 240
 tggacacgat cactgcctgg agcacattag cagcagagac agtccactcc agtatttcac 300
 gagcggaggc ggttccaagg catggagagg agtcttccat ccaaacaagg acaagctccg 360
 gttcttctac gatgggcaaa ggttcatg 388

<210> 3946
 <211> 420
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-009-Q1-K1-A3

 <400> 3946

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gctgccaagg actacacgga cctcccccg gcgcgctga tcgacgcggc ggagctgggg 180
 tcctgggtgc tgtaccgcgc cgtgatcgcc gagttcatcg ccacgctgct gttcctgtac 240
 atcacggtgg ccacgctgat cgggtacaag caccagacgg acgcgtcggc gtcggggcgc 300
 gacgcggcgt gcggggcggt gggcgtgctg ggcacgcct gtgccttcgg cggcatgac 360
 ttcgtcctcg tctactgcac cgccggcatc tcggggggcc acatcaacca cgccgtcacc 420

<210> 3947

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A4

<400> 3947

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 agatgcgttc attattccac aatgctcact tgctcctagt gccattattc cacagtctct 120
 cctccagtt acttcaatgg gcttcgaaca ccagctgtg caagcctaca ggctacaaca 180
 agcgtttgcg gcgagcgtct tacaacaacc aattgcccaa ttacaacaac aatccttggc 240
 acatctaacc atacaaacca tcgcaacgca acagcaacaa caatttctac cagcactgag 300
 ccaactagct gtgggtgaacc ctgtcgccta cttgcaacag cagttgcttg catccaaccc 360
 acttgctctg gcaaacatag ttgcatacca acaacaacaa caattgcaac agtttctacc 420
 agcgtcagt caactagc 438

<210> 3948

<211> 432

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-A5

<400> 3948

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 ttctgcaagt gtgctaccg caaccatttt ccacaaatgc tcacaagctc ctatagcttc 120
 cttcttccc ccatacctct caccagcggg gtcttcaatg tgcgaaaccc caattgttca 180

accctacagg atccaacagg caatcgcaac aggcatttta ccattatcac ccttgcttct 240
ccaacaaccg tcagccctat tacagcagtt acctttggtc catttggtgg cacagaacat 300
canggcacaa caactacaac aacttgtgct agcaaaccct gctgcatact ctcagcaaca 360
tcagtttctt ccattcaacc aactggctgc attgaactct gctgcttatt tgcaacaaca 420
attaccatt ca 432

<210> 3949
<211> 430
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-009-Q1-K1-A7

<400> 3949

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taccaagata ttagccctcc ttgcgcttct tgcccttttt gtgagcgcaa caaatgcgtt 120
cattatttca caatgctcac ttgctcctag tgccattatt ccacagttcc tgccaccagt 180
tactttaatg ggcttcgaac acctagctgt gctagccaac atgcaacaac aagcgcttgc 240
ggcgagcgtc ttacaacaac ccattgcca attgcaacaa caatccttgc cacatctaac 300
aatacaagcc atcacaacgc aacatcaaca acagttgcta ccagcactga gccacctagc 360
catggtgaac cctgacgnet acttgcaaga gcagctgctt gcatccaacc cacttgctct 420
ggcgaacgta 430

<210> 3950
<211> 276
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A8

<400> 3950

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cgagaacatc ttcaaaggga tcgacgcccg gttcctgagc gaagccctgg gcgtcagcat 120
gcacgtcgcc gagaagctgc agagccggcg tgaccagcga ggcgagatcg tccgcgtgga 180
gccggagcac ggctttcacc agctgaatcc gtcgccgctc tcgtcgtcgt ttctggtccc 240

atcgtcacaa ggccagtacc aaacgtgcca gcgcga

276

<210> 3951

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A9

<400> 3951

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cctcttataa ctgcaacaat tgctgccatt caaccaactt gctttgacaa acccaacagt 120
gttctaccaa caacccatca ttggtggtgc cctcttttag attgcttatg agttatagtt 180
caataatgaa gtttttttga tgatgtttgt ggcgtcccag aaataagaaa gtacatttct 240
agattcttaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300
aaataaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 360
aatattcact aaataaaaaa actaaacaaa aattttttaa aaaaaaaaaa ggggccccct 420
tt 422

<210> 3952

<211> 385

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-B1

<400> 3952

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ctgtcggggg cgcacaccat cggcgtggca agctgctcca gcgtcacccc gcgcctgtac 180
caggggaacg ccagcagcgt ggacccgctg ctggactcgg cctacgcgcg gacgctcatg 240
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ttccggttcg acagcgggta ctacaccagg gtgcagcaga ggcagggcac gctggcctnc 360
gacgccgcgc tggcgcagaa cgccg 385

<210> 3953
 <211> 326
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B10

<400> 3953

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tgtgatgaat gcagatgcca tcgatgtgac aattgttccg gatgatgatg atgacagggg 180
cgaggttgct gtcaatccat ctgtgggtggg tgaaattgga gagtcggaga ctgacgttcc 240
agagaagatt gaagtggagg ctgagatggg tgacgagtat gtggatatcg gtgatgagat 300
gccgacgatg aattaccagt cggtgg 326
  
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<210> 3954
 <211> 409
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B11

<400> 3954

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tactcacaag ctcctatagc tgcccttctt ccccatatac ttccatcaat gaccgcttta 180
gtatgtgaaa acccagccct tcaaccctac aggatccagc aagcaatcgc aacaagcaac 240
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gtacaaaacca tcagggcaga acagttgcag caactcgtgc taccagtgat cagccaagta 360
gctctggcaa acctttcccc ctactctcag caacaacaat ttctttcat 409
  
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<210> 3955
 <211> 290
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B12

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gctcacttgc tcctagtgc attattccac agttcctccc accagttact tcaatgggct 180
tcgaacacct agctgtgcaa gccaacatgc aacaacaagc gcttgcggcg agcgtcttac 240
aacaaccaat tgcccaattg caacaacaat ccttgccaca tctaacaata 290

<210> 3956

<211> 342

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B2

<400> 3956

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ccagctgcag ggaacctgcg gcgttggcag caccgccatc ctgggccagt gcgtcgagtt 120
cctgagggcat cagtgcagcc cgacggcgac gccctactgc tcgcctcagt gccagtcgtt 180
gcggcagcag tgttgccagc agctcaggca ggtggagccg cagcaccggt accaggcgat 240
cttcgggcttg gtcctccagt ccatcctgca gcagcagccg caaagcggcc aggtcgcggg 300
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<210> 3957

<211> 412

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B3

<400> 3957

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tcttatttgc aacaacaaca actaccattc agccagctac ctgctgccta cccccagcaa 300

tttcttgcac tcaaccaact agcagcattg aactctgctg cttattttaca gcagctgcat 360
actactacca ttcagacact tagctcgtgt gagcgctgat agcttcttga ca 412

<210> 3958
<211> 304
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B5

<400> 3958

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cagggcacia cagctgcagc aactcgtgct acctgtgatc aaccaagtag ctctggcaaa 180
cctttctccc tactctcagc aacaacaatt tcttccattc aaccaactgt gtacactgaa 240
ccctgctgct tatttgcagc aacaactatt accatttagc cagctagcta catgctactc 300
tcag 304

<210> 3959
<211> 410
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B6

<400> 3959

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cgcggtccgt gtcccggtg gtgtctgtcg cgcccgcggc agcggtcacg gcgcagagga 180
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cccgcgaggg ggagaaggag cctcaggcgc ccaccgtcgc caagtgggag cctccgctcg 360
agggtacat ccgattctc gtcgacagca agctcgtctt ccagacgctc 410

<210> 3960
<211> 414
<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B7

<400> 3960

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ggagcagcaa cagactacaa ggtgcagcta taactactat agcagtagct caaatctaaa 240
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acgtttgata caaccaagta gctgccaggt attgcatcaa caatgctgtc atgatcttag 360
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<210> 3961

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-B8

<400> 3961

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gctggggaat tgcattattgt gtcaaggggtg gtccagaaaa agagctaaaa gcaatgcagt 180
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gagatccctt gaaaccagct gtgacaagcc gtctagtggc cgtttccatt caaaatccaa 300
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<210> 3962

<211> 435

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-009-Q1-K1-A2

<400> 3962

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ctatctgccg ccgcagcagc agccgcagcc atggcaatac cccactcaac caccgcagct 240
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acagtgccag gcgctgcagc agcagtgctg ccaccagatc angcaggtgg agccgctgca 420
ccggtaccag gcgac 435

<210> 3963

<211> 460

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G9

<400> 3963

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gctgccagtt ggttgaatgg aagaaattgc tgggggtagg cagcagctag ctgactgaat 420
ggtagttggt gttgcaaata agcagcagag ttcaatgcag 460

<210> 3964

<211> 412

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-H1

<400> 3964

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 caaccaactg actgtgtcga actctgtctg gtacctacaa cagcgacaac agttacttaa 360
 tccactagca gtgcctaacc cattgggtcac tgccttncta cagcagcaac aa 412

<210> 3965

<211> 424

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-H10

<400> 3965

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 aatgggcttc gaacaccag ctgtgcaagc ctataggcta caacaagcgc ttgcggcgag 240
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 aaccatcgca acgcagcagc aacaagcact gagccacct ggcgtggtga accctatcgc 360
 ctacttgcaa caacagctgc tngcatccaa cccacttgct ttggcaaacg tagctgcata 420
 ccaa 424

<210> 3966

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H12

<400> 3966

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 gcgcgctcct cctggcgtg ctctgtctc cgcactacga cggcgggacg acgacgacga 180

tgggtggcgga ggccccgggtg tgcattgggca agagccagca ccactcgttc cgctgcatct 240
 ccgaccgcct ctgcagcaac gagtgcgtca aggaggactg cgggtggacc gccggctact 300
 gccaccttcg ctactgcaag tgccagaagg cgtgctaagc aaagctcttg aaacaccctt 360
 ggcttgccag aactgaactg gggtagtact aagttacacc cttggctagc tgt 413

<210> 3967

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H2

<400> 3967

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 gtgagcacgg cggcgctggc atgggtggcg ggcagttcca gcctgcgagg gaggagcaca 180
 agaccggcgg catcctgcat cgctccggca gctccagctc cagctcgtcg gaggacgacg 240
 gcatgggagg aaggaggaag aagggaatca aggagaagat caaagagaag ctgcccggag 300
 gccacaagga cgaccagcac gccacggcga cgaccggcgg cgcctatggg cagcagggac 360
 acaccggcag cgcctacggg cagcagggac ac 392

<210> 3968

<211> 454

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H3

<400> 3968

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 accattttcc cgcaatgctc gcaagctcct atagcttccc ttcttcccc gtacctctca 180
 ccagcgggtg cttcggtatg tgaaaacca attcttcaac cctacaggat ccaacaggca 240
 atcacagctg gcatcttacc tttatcacc ttgttctcc aacaatcatc agccctatta 300
 catcagttac ctttggtgca tttattggca caaaacatca gggcacaaca actacaacaa 360

cttgtgctag caaaccttgc tgctactct cagcaacagc agtttcttcc attcaaccaa 420
ctagctgcat tgaactctgc ttcttatttg caac 454

<210> 3969
<211> 372
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H4

<400> 3969

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acttcttgtt gaaatcccag aaagtgcac tggtggctca ctaaagaaaa ctgttctcga 120
ggcagtgact gcgattctcg gaggtggtct acgtgttggt gttcttcacc atggaaagaa 180
agttagagat gataataaaa cggttgattca ggctgggtatt ggtcaggagg atatgctgga 240
caaccttggc ttttcaactg aacccaactg tacacaaaac ccacaagtcc aagctcctga 300
agatatcagt ttcttggaac ccattgatac tgctgaaccc ctgcaagga ttgcacctgc 360
tgactcgtct tc 372

<210> 3970
<211> 409
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H5

<400> 3970

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ctctttctac atgtgttgct aacgcgacaa tttccctca atgctcacia gctcctatag 120
cttcccttct tccccatac cttccatcaa ttatagcttc agtatgtgaa aaccagctc 180
ttcaaccata taggettcaa caagcaatcg cagcaagcaa cataccttta tcgccccttg 240
tgtttcaaca atcaccagcc ctatctttgg tgcagtcatt ggtacaaacc atcagggcac 300
aacagctgca gcaactcgtg ctacctgtga tcaaccaagt agctctggca aacctttctc 360
cctactctca gcaacaacaa tttcttccat tcaaccaact gtctacact 409

<210> 3971
 <211> 393
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H6

<400> 3971

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ctctcgctgg tgggtgctcct cctcctccac ctgctcccgg ggcgggcggc ctccctttcc 180
acctcctgct ggtgccaggg ccggggagggc gtcgcggagg tggcgcgcat ggggctcgcc 240
ggggacgggt cggcggacac cgtccacctc agtaataatg aaaatgggcy gttcatttat 300
ggagttgcga gttctcctgg taaaagagca tcgatggagg acttctatga ggcaagaata 360
gacgacgttg atggagagaa aattggaatg ttc 393
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<210> 3972
 <211> 432
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H8

<400> 3972

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tcacaagctc ctatagcttc ccttcttccc ccataccttc catcaattat agcttcagta 180
tgtgaaaacc cagctcttca accatatagg cttcaacaag caatcgcagc aagcaacata 240
cctttatcgc ccttggtggt tcaacaatca ccagccctat ctttggtgca gtcattggta 300
caaaccatca gggcacaaca gctgcagcaa ctctgctac ctgtgatcaa ccaagtagct 360
ctggcaaacc tttctcccta ctctcagcaa caacaatttc ttccattcaa ccaactgtct 420
aactgaacc ct 432
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<210> 3973
 <211> 421
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-H9

<400> 3973

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tggcaataag ctgccattcg ctgcagccca aattggtcag gccttcagga atgagatata 120
tccccgtcaa ggccttttga gagtccgtga gtttacttta gcggaaattg agcactttgt 180
ggaccagag gacaaatccc atccaaagtt tggatgatgt tctgatctag agttctggat 240
gtttccgaga gaggatcaaa tggcaggaag gtcagccaca agacttaaac tcggaaattc 300
tatactctgag ggaactgtga acaatgagac ccttggctac ttcattggaa gggctctacct 360
tttcttgaca caacttggga ttgacaagga tcgtctccgt ttccgtcaac acctgccaaa 420
t 421

<210> 3974

<211> 373

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A1

<400> 3974

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aagtcgtgct tccttcttga cacagcaaca gttgctgcct ttgtacaagc agtttgcggc 120
taaccccgca accctcttac aactacaaca attgggtgcc tttgtgcaac ttgctttgac 180
aaaccagta gactactacc aacaacacat cattgggtggg gccctctttt agattgatga 240
ttagtcgtca ttcaataata aagttacttg gatgatgtat gtggccaacc agaaataaga 300
agttacattt ccaacaacta caacaacttg tgctagcaaa ccttgctgca tactctcagc 360
aacatcagtt tct 373

<210> 3975

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A10

<400> 3975

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 ctccttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt cccgcaatgc 120
 tcgcaagctc ctatagcttc ctttcttccc cgtacctct caccagcggg gtcttcggta 180
 tgtgaaaacc caattcttca accctacagg atccaacagg caatcgcagc tggcatctta 240
 cctttatcac ctttggtcct ccaacaatca tcagccctat tacaacagtt acctttgggtg 300
 catttattgg cacaaaacat caaggcacia caactacaac aacttgtgct agcaaaccctt 360
 gctgcctact ctgagcaaca gcagtttctt ccattcaacc aactagggtc attgaactct 420
 gcttcttatt tgcaacaaca acaactacca 450

<210> 3976

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A11

<400> 3976

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 cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcgggtat 180
 gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgcagct ggcattcttac 240
 ctttatcacc cttgttcttc caacaatcat cagccctatt acaacagtta cctttgggtgc 300
 atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360
 ctgcctactc tcagcaacag cagtttct 388

<210> 3977

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-009-Q1-K1-A12

<400> 3977

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caaccacaaa aacatcagca acaacaagaa gttcatgttc aacaacaaca acaacaaccg 180
cagcaccaac aacaacaaca acaacaacag caccaacaac aacatcaatg tgaaggccaa 240
caacaacatc accaacaatc acaaggccat gtgcaacaac acgaacagag ccatgagcaa 300
ccaccaagac agagccatga gcaacaacat caacaacaat tccaagggtca tgacaagcag 360
caacaaccac aacagcctca gcaatatcaa cagggcccag gaaaatcaca acagcaacaa 420
tgtca 425

<210> 3978

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G8

<400> 3978

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gaggaggact ggaaggaggc cgagggggac gtcgccgaag tcgaccgcgc cgccaccaat 120
ggcgccggcg agggggggcgt gccacagac aggccgatcc ggggtctacgc cgacggcatc 180
tacgacctct tccacttcgg ccacgccaag tcgctggagc aggccaagaa gtcgtttcca 240
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actgttatga ctgaggatga gcgatatgag tcacttcgtc attgcaagtg ggttgatgaa 360
gtcattccag atgctccatg ggtggtgaca gaagagttct tggataagca taacattga 419

<210> 3979

<211> 307

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G7

<400> 3979

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atattttcca tccttatgct ccttgctctt tctgcatgtg ttgctaacgc gaccatttct 120
cctcaatact cacaagctcc tatagctgcc cttctttccc cataccttcc atcaatgacc 180
gcttcagttt gtgaaaaccc agcccttcaa ccctacaggc tccaacaagc aatcgcatac 240

aagcaactta cctttatcac ccctgttctt tcaacaatcg ccagccctat ctttgggtgcc 300
atcattg 307

<210> 3980

<211> 319

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G8

<400> 3980

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gcctttctac cagcagtttg cggctaacc cgaaccctc ttacaactac aacaattggt 120
gccctttgtc caacttgctt tgacagaccg agcggcctcc taccaacaac acatcattgg 180
tggtgccctc ttttagattg cttattagtt gtaattcaat aataaagttt tttggatgat 240
gtatgtggcc aaccagaaat aagaagttac atttccagat tttaaaaagt gcaattaaag 300
gcacaaaaca ttaagagac 319

<210> 3981

<211> 429

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G9

<400> 3981

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tgccagcagc tcaggcaggt ggagccgcag caccggtacc aggcgatctt cggcttggtc 120
ctccagtcca tcctgcagca gcagccgcaa agcggccagg tcgcgggggt gttggcgggc 180
cagatagcgc agcaactgac ggcgatgtgc ggcctgcagc agccgactcc atgcccctac 240
gctgctgccg gcggtgtccc ccactgaaga aactatgtgc tgtagtatag ccgctggcta 300
gctagctagt tgagtcattt agcggcgatg attgagtaat aatgtgtcac gcatcaccat 360
gggtggcagt gtcagtgtga gcaatgacct gaatgaacaa ttgaaatgaa aagaaaaaag 420
tattgttcc 429

<210> 3982
 <211> 387
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-027-Q1-K1-H1

<400> 3982

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tacctctctc cggtgacagc cgcgagattt gaatacccaa ctatacaatc ctacaggcta 180
caagaggcca tcgcagcaag catcttacgg tcgttagcat tgaccgtcca acaaccatat 240
gccctattgc aacaaccatc cttaatgaat ctatatctcc aaagaatcgc agcacaacaa 300
ctacaacaac agttgcttcc aacaatcaat caagtagttg cagcgaacct tgctgcttac 360
ctncagcaac aacaatttct tccattc 387
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<210> 3983
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H10

<400> 3983

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cggcttcgac ttcgacgaca aaatcctcgg cttcatcaag ggctacaagc gcacctttaa 180
tctcgcttgc attgaccaca gaggcacacc ggagcatccg gcgaggacct gcacgcttga 240
aaccgacgac gaggccatat gctggggaat tgcattattgt gtcaagggtg gtccagaaaa 300
agagctaaaa gcaatgcagt acttgagag aagagagtgt gactacgacc agaagatatc 360
cattgatttc tacaaggaag gagatccctt gaaaccagct gtgacaggcg tcttaattgg 420
cgtttccac 429
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<210> 3984
 <211> 437
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H11

<400> 3984

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acaatggcta ccaagatatt agccctcctt gcgcttcttg ccctttttgt gagcgcaaca 120
aatgcgttca ttattccaca atgctcactt gtccttagtg ccattatacc acagttcctc 180
cgaccagtta cttcaatggg cttcgaacac ctagctgtgc aagcctacag gctacaacaa 240
gcgcttgccg cgagcgtctt acaacaacca attaaccaat tgcaacaaca atccttggca 300
catctaacca taaaaccat cgcaacacaa cagcaacaac agttcctacc agcactgagc 360
caactagatg tgggtgaacc tgctgcctac ttgcaacagc aggtgcttgc atccaacca 420
cttgctctgg caaacgt 437

<210> 3985

<211> 441

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H12

<400> 3985

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cctccttatg ctcccttggtc tttctgcaag tgctgtacg gcgaccattt tcccgcaatg 120
ctcgcaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcacag ctggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacatcagt tacctttggt 300
gcattttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg cattgaactc 420
tgcttcttat ttgcaacaac a 441

<210> 3986

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H2

<400> 3986

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aggatatgctc tttggactat ctgcaagagc tgctacagcg accattatta cacaatgctc 120
acaagctcct atagctcaac ttgttgcgac ggacctatca ccatcggtgt ctacactcta 180
cgaaaacgca agtcttcaac cctataggaa ccaacaggca ttgcgagctg gcattcttacc 240
gttataacct ttgcccatca gcaatcataa gacctattac agcaatttac ctttggtgca 300
ttcattggca cataacatca gggcacaaca actacaacaa cttgtgctat aaaacctagc 360
tgctactctt aagaacaaca gatt 384

<210> 3987

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H3

<400> 3987

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agcactcatt gaaccagagg cgtaaagac ttatatctgc cttcagtgtc atgatggatc 180
cattcagcat gtggaggacg aggttgcaat gttctgcccc atgatatgtc gtgaaattga 240
gaagaatggc acagggtcgt ccaaaaatga tgctattgcy ctccctgaat gagttaatcc 300
agccagtttg agtgtgattc ttgactactg ccggattcat catgttactg ggccgc 355

<210> 3988

<211> 280

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H4

<400> 3988

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agtgcgggca gatcgggtgac cacagtgacc tcggctacta atacaccaac gaggcgctcc 120

tgcgatccag gtcgatcgcg gtcaaagacg aagtgttctg cctggctgaa ggggtgctgg 180
acaacctgtg tcggatgagg cagcagcact gtctgtcatg ctagggcgcc aacaagggtgc 240
tcttggtaat cgaggcctac aagacgatgc gcgagcgctc 280

<210> 3989
<211> 318
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-027-Q1-K1-H5
<400> 3989

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ctaaatTTTT acatatcact gatgtgtgct attgagcggg gtacgaaata gcgaccaatt 240
taaccatttg acgctattta tgcaaaaact ttaccaatat gatttcattc tctagtgcgc 300
tatgtacata tcaatatt 318

<210> 3990
<211> 214
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-027-Q1-K1-H6
<400> 3990

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tttttactgt cgaaactgtg aatgtcacat tgaatcagtt atacaacgtc agctggcgct 120
tgcttctcgg ctaaccgcca taactgtccg actgacactt tacatacaac acaacttacg 180
cgaagcgctc acatataaca catatggggtt gcgc 214

<210> 3991
<211> 416
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-027-Q1-K1-H7

<400> 3991

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gcgcatcaaa tgcgtacatt attccagaat gctcacttgc tgctagttac attattacac 180
agttactgct accagttact taaatggcct tcgaacactc agctgtgcaa gcctatacgc 240
tacatcaagc gattgctgcg agcgtcttac accaaccaat tgcccaattg caacaacaat 300
ccttagtaca tataacaata cagaccatcg cagcgtaaca gcaacaacag ttactaccat 360
cactgatcca cctagccatg gtgaacactg tacgctactt gcaacagcag ctgctt 416

<210> 3992

<211> 329

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H8

<400> 3992

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caactaccat tcagccagct atctgctgcc taccgccagc aatgtcttcc attcaaccaa 120
ctgacagctt tgaactctcc tgcttattta caggagcadc aactactacc attcagtcag 180
ctagctgggtg tgagctctgc taccttcttg acacaaccac aattggtgcc gtgctaccag 240
cacgctgcgc ctaacgctgg caccctatta caactgccac aattgctgcc attcaaccaa 300
cttgctttga cagacccaac agcatttta 329

<210> 3993

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-H9

<400> 3993

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gaagccaggc ggcggagagg gagctcgagg cggcggagga aggcgttcgc cacagtcgct 120
gatttccctg gggaagagat gggctctctcc tttgggaagc tggttcagccg cctcttcgcc 180

aagaaggaga tgaggattct catggtcggg ctcgatgccg cctgtaagac caccatccta 240
tacaagctca agctcggcga gatcgtcacc accatccgca ctatcggatt caatgttgaa 300
actgttgagt ataagaacat tagcttcact gtttgggatg ttggtggcca ggacaagatc 360
aggccctgt tgaggcacta ctttcagaac acacagggac ttatTTTTgt tgtagacagc 420
aacgactggg aacgtgt 437

<210> 3994

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-028-Q1-K1-A1

<400> 3994

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aagatattag ccttccttgc gcttcttgcc cttttagtga ggcgaacaaa tgcgttcatt 120
attccacagt gtcacttgc tcctagtgcc agtattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgcgggc 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaacaa cagtttctgc catcactgag ccacctagcc 360
gtggtgaacc ctgtcaccta cttgcaacag cagc 394

<210> 3995

<211> 300

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G5

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cgttctacca gctcgttgcg cctaactgct ggcgcctgtt atacaactgc atcaactgct 120
gtgattcaac caactctgtt tgacaaattc atcaacgacg gatcaacaac ccatcattgg 180
tggtgcccta ttttacattc ttatgcgtat agtcataatg agtttgatat gatcttatgg 240
ctatccagat atagaaagta catttctaaa aaatattaca cagttacatt aaaggccttt 300

<210> 3996
 <211> 435
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-F11

<400> 3996

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gtcttctttt cgaaggtaaa aaaaaactaa ctcgacaact gttttgtagc ttgaattaat 180
aagtgttgca ggtagaatac ccaagattac cttcggctca ccttcggcgg ggatgggtgc 240
aatgcaacaa cgaatacaaa agcgcaagct tcggagtaac agcatgtgca catgaggggt 300
gaacaagcca aaaccatgag aggtcaacaa gacagctata gaaattgact gcagtatcct 360
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aagctgtaac tcacg 435
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<210> 3997
 <211> 432
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-F2

<400> 3997

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accgtctgga tggtgccaag atcatcaaga tcttcttgga cccaaaggag aggaacaaca 180
cagaatacaa gctggacacc tacactacg tctaccgcag gctgtgtggg aaagatgtgg 240
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tttgttgaat ctggatgttt ctttggggtc tcaactagac tgctccgtat gtacttcaaa 360
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acctgaacaa tg 432
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<210> 3998

<211> 254
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-027-Q1-K1-F3

 <400> 3998

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 tgctgataac gctacaattc tacctttacg ctgacaagct tatcaagcat tcctttgtgc 180
 ctogaacact ccaataatta atcgcttagg atgcgaaaag ccagctcttc aagcatafta 240
 gcttaaacia gcaa 254

<210> 3999
 <211> 384
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-027-Q1-K1-F5

 <400> 3999

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 ttgctacaag ttccattatt acacagatac cgttcaccag gcacttcaat gggcttcgaa 180
 caccocaactg tgcaagccta taggctacaa caagcaatct ctgcaagcgt attacatcaa 240
 ccaagcttcc agttgcagca acaatccttg gtacatctta cagtacaaac catcgcaacg 300
 catcagcaac aaccattcct accagcactg aatcacctag ccatagcgaa ccctgccggc 360
 tacttgcaac agcagatgct tgca 384

<210> 4000
 <211> 409
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-027-Q1-K1-F7

 <400> 4000

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gagcaacaat ggcgaccaag atattttccc tccttatgct ccttgctctt tctacatgtg 120
 ttgctaacgc gacaattttc cctcaatgct cacaagctcc tatagcttcc cttcttcccc 180
 cataccttcc atcaattata gcttcagtat gtgaaaaccc agctcttcaa ccatataggc 240
 ttcaacaagc aatcgagca agcaacatac ctttatcagc cttggtggtt caacaatcac 300
 cagccctatc tttgggtgcag tcattggtac aaaccatcag ggcacaacag ctgcagcaac 360
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<210> 4001

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-F8

<400> 4001

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 tgctcacttg ctccgagtgc cattattcca cagttcctcc ctccagttac ttcaatgggc 180
 ttcgaaacacc cagctgtgca agcctatagg ctacaacaag cgcttgccgc gagcgtctta 240
 gaacaaccaa ttgcccaatt acaacaacaa tccttagcac atctaaccat acaaaccatc 300
 gcaacgcagc agcaacaagc actgagccac ctagccgtgg tgaaccctat cgcctacttg 360
 caacaacagc tgcttgcac caaccactt gctttggcaa acgtagctgc ataccaacaa 420
 c 421

<210> 4002

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-F9

<400> 4002

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 gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt gctagcaaac 180

cttgetgcct actctcagca tcagcagttt cttccattca accaactagc tgcattgaac 240
 tctgcttctt atttgcaaca actacttcta ccattcagcc agctatctgc tggctacctt 300
 cagcaattcc ttccattcaa ccaactgaca gcattgaact ctcttgctta tgtacagcag 360
 ccacatctac taccattcag ccagctagct ggtgtgagcc ctgctacctt cttgacacaa 420
 cc 422

<210> 4003
 <211> 435
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-027-Q1-K1-G10
 <400> 4003

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 acagcagttt ctttcattca accaactagc tgcattgaac tctgcttctt atttgcaaca 180
 acaacaacta ccattcagcc agctacctgc tgcctacccc cagcaatttc ttccattcaa 240
 ccaactggca gcattgaact ctactgctta tttacagcag caacaactac taccattcag 300
 ccagctagct ggtgtgagcc ctgctacctt cttgatacat ccacagttgt tgccgttcta 360
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 ccaacttget ttgac 435

<210> 4004
 <211> 442
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-027-Q1-K1-G11
 <400> 4004

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 acaacagctg cagcaactcg tgctacctgt gatcaaccaa gtagctctgg caaacctttc 180
 tccctactct cagcaacaac aatttcttcc attcaaccaa ctgtctacac tgaacctgc 240

tgcttatttg cagcaacaac tattaccatt tagccagcta gctactgcct actctcagca 300
 acaacaactt cttccattta accaattggc cgcactgaac cccgctgctt atttgagca 360
 gcaaatacta ctgccattta gcgagctagc tgcagcaagt cgtgcttcct tcttgacaca 420
 gcaacagttg ctgcctttct ac 442

<210> 4005

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G2

<400> 4005

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 tgaactctgc ttcttatttg caacaacaac aactaccatt cagccagcta cctggtgcct 180
 accccaaca atttcttcca ttcaaccaac tggcagcatt gaactctcct gcttatttac 240
 agcagcaaca actactacca ttcagccagc tagctggtgt gagccctgct accttcttga 300
 cacaaccaca gttgttgccg ttctaccagc acgctgcgcc taacgctggc accctcttac 360
 aactgcaaca attgctgcca ttcaaccaac ttgctttgac aaacctagca gtgttctacc 420
 aacaacc 427

<210> 4006

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-G3

<400> 4006

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 caatgtctac aagctcctat agcttccctt cttcccccat acctctcacc agcgggtgtct 180
 tcaatgtgtg aaacccaat tgttcaacct tacaggatcc aacaggcaat cgcaacaggc 240
 atcttaccat tatcaccctt gttcctccaa caaccgtcag cctattaca gcagttacct 300

ttggtccatt tggtggcaca gaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg catactctca gcaacatcag tttcttgcat tcaaccaact ggctgcattg 420
aactctg 427

<210> 4007
<211> 350
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-027-Q1-K1-G4
<400> 4007

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caagctccta tagcttccct tcttcccccg tacctctcac cagcgggtgtc ttcgggtatgt 180
gaaaacccaa ttcttcaacc ctataggatc caacaggcaa tcgcagctgg catcttacct 240
ttatcacctt tgatcctcca acaatcatca gccctattac agcagttacc tttggtgcat 300
ttattggcac aaaacatcag ggcacaacaa ctacaacacc ttgggctagc 350

<210> 4008
<211> 438
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-027-Q1-K1-F10
<400> 4008

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gttacttcaa tgggcttcca acatccagcc gtgcaagcct acacgctaca actagcgctt 180
gctgcgagcg ccttacaaca accaattgcc caattgcaac aacaatcctt ggcacatcta 240
accctacaaa ccattgcaac gcaacaacaa cttcaacagt ttctgccatc actgagccac 300
ctagccgtgg tgaacctgt cacctacttg caacagcagc tgettgcatc caaccactt 360
gctctggcga acgtatctgc ataccagcaa caacatcagc ttgaacagtt tatgccagt 420
ctcagtcaac tagccatg 438

<210> 4009
 <211> 391
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D7

<400> 4009

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gctgtggctg ccagacacca ccgtttcatc taccgactgc gttctatatg ccgcctccgt 180
tctatctgcc gccgcagcat cagccgcaac catggcaata cccactcaa ccaccgcaac 240
taatcccgty ccagcagttc ggatcctgag gcgtcggcag cgtcagcagt ccgtacctgg 300
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ccacagtgcc aggcgctgca acagcagtgc t 391
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<210> 4010
 <211> 290
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D8

<400> 4010

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tttagtaccg ttgctctctt ggcggcctcg tctgggccac cgacgaccac tcgctcaaca 180
actccttcag cacctacggc gaggtcctcg agtcgaagat catcctgcat cgggagacgc 240
agagggtccc cggtactgc ttacgcacct tctccacaga cgacgcgatg 290
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<210> 4011
 <211> 380
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E1

<400> 4011

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 aattgctgcc attcaaccaa ctcgctttga caaacccaac agtggttctac caacaacca 180
 tcattggtgg cgccctcttt tagattgctt atgagttata gttcaataat gaagttcttt 240
 ggatgatggt cgtggcgctc cagaaataac aaagttaaataaaaagcgctc gcataccgta 300
 cctgggtcaa tgcgtcgagt tcctgaagca ccaatgcaac ccggcggcga caccctacgg 360
 ctcgccacaa tgccaggcgc 380

<210> 4012

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E10

<400> 4012

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 aacagctaca acagtttcag ccaacgtcga gtcaactagc catggtgaac cctgacgtct 180
 acgtacaaca acaacaactg ctttcattcta acccgctcgc tgcgggcaat gcacactaca 240
 tacctgcaac aacaattgct gcaacagatt gtaccagctc tgactcaact agctggggca 300
 aacccatgtg cctacttgca acagctgctt acatgcgacc aactgactct ggcgaaactct 360
 gctgacgacc tacaacagcg acaacagtta cttaatccat tgtagtggtg taaccatttg 420

<210> 4013

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E11

<400> 4013

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aatcgcagca agcaacatac ctttatcacc cttgttgttt caacaatcgc cagccctatc 240
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 tgtgatcaac caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct 360
 tccattcaac caactgtcta cactgaaccc tgctgcttat ttgcagcaac aactattacc 420
 attcagccag caaatac 437

<210> 4014

<211> 353

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E12

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 tgaccagatc accgagccca agaggccttc agacaagccc ctgcgtctgc ccctccagga 180
 tgtgtacaag attggtggta ttggaactgt accggttggt cgtgtggaga ctggtgtcat 240
 caaacctggt atggttgtca cctttggtcc aactgggctg actaccgagg tgaactctgg 300
 tgagatgcac cagcagcgcc ttcacgaagc ttttccgggt gacaatgttg gct 353

<210> 4015

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E2

<400> 4015

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 cgcgacaatt ttccctcaat gtcacaagc tcctatagct tcccttcttc ccccatacct 180
 tccatcaatt atagcttcag tatgtgaaaa cccagctctt caaccatata ggcttcaaca 240
 agcaatcgca gcaagcaaca tacctttatc gcccttggtg tttcaacaat caccagccct 300
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acctgtgatc aaccaagtag ctctgg

386

<210> 4016

<211> 357

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E3

<400> 4016

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tttttttttt tttttttttt tttttttttt taaaaaaaa aaaaaatgca aaaaaaaaaa 180

aatatttata aaaaaataa aaaaaattat aaatattggg ccataaaaaa attttttagg 240

attagttgga aaaaatttta aaaaaaaaaa atttatattt taacaaagggt taaaaatata 300

aaagggaaaa taaatgtaaa aaaaaatggg ggtattttaac caacagaaat tttaaatt 357

<210> 4017

<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E4

<400> 4017

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acgcgacaat tttccctcaa tgctcacaag ctcttatagc ttcccttctt ccccatacc 180

ttccatcaat tatagcttca gtatgtgaaa acccagctct tcaaccatat aggcttcaac 240

aagcaatcgc agcaagcaac atacctttat cgcccttggt gggtcaacaa tcaccagccc 300

tatctttggt gcagtcattg gtacaaacca tcagggcaca acagctgcag caactcgtgc 360

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<210> 4018

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-027-Q1-K1-E5

<400> 4018

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ctatcttttg tgcagtcatt ggtacaaacc atcagggcac aacagctgca gcaactcgtg 180
ctacctgtga tcaaccaagt agctctggca aacctttctc cctactctaa gcaactacaa 240
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tgtccattta gccagctagc tactgcctac tctcagcaac aacaacttct tccatttaac 360
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gagctagctg cagcaagt 438

<210> 4019
<211> 423
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E6

<400> 4019

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gcaagctcct atagcttccc ttcttcccc gtacctttca ccagcgggtg cttcggtatg 180
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tttatcacco ttgttcctcc aacaatcatc agccctatta caacagttac ctttggtgca 300
tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaacctagc 360
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ttc 423

<210> 4020
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E8

<400> 4020

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cgtagttctg taccctgaaa atggagggaa cttgcactgc tttacggcgc tgaccccttg 180
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tcacagcaca tttgagatgg aaggcataaa gatggagccc aacttcatcg tctaataatt 360
aagcaggcat ggcatgacat gacatggcat cgtaatgctg ctagtttcat gtaga 415

<210> 4021

<211> 473

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-E9

<400> 4021

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gccgcctcca gtacaagcgg cggctgtggc tgccagacac caccgtttca tctaccgcct 180
ccgtttctata tgccgcctcc gttctatctg ccgccgcagc agcagccgca gccatggcaa 240
taccctactc aaccaccgca gctaagcccg tgccagcagt tcggatcctg cggcgctcggc 300
agcgctcggca gcccgttcct gggccagtgc gtcgagttcc tgaggcaacca gtgcagcccg 360
gcggcgacgc cctacggctc gccacagtgc caggcgctgc agcagcagtg ctgccaccag 420
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<210> 4022

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-F1

<400> 4022

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ccttatgctc cttggtcttt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
 gcaagctcct atagcttccc ttcttccccc gtacctctca ccagcgggtg cttcggtatg 180
 tgaaaaccca attcttcaac cctacaggat ccaacaggca atcacagctg gcatcttacc 240
 tttatcacco ttgttctctc aacaatcatc agccctatta catcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgcctactct cagcaacagc agtttcttcc attc 394

<210> 4023

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D6

<400> 4023

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 atccggcgca gctgacgccg tgctcggcgc cggcgctgct ctgagagccc gtgcctccgt 180
 cttgctgcgc gcagctgccg acgcatcagg ggtgactatg ctggtacgcg cgcagcccaa 240
 actacggtag ctacattcgt aggcgcaacg cggcgaggct tttatgcac tgaaacctgg 300
 acatgtcacg atgtcgtaat acgcgggtcaa cagtatatat actagctagc tcttccaata 360
 caatcatgct cagtcgctgg aatatcgta 389

<210> 4024

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F2

<400> 4024

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 gcgaacgtag ctgcatacca gcaacaacaa cagctgcaac agtttatgcc agtgctcagt 180
 caactagcca tgggtgaaccc tgccgtctac ctacaactac tttcatctag cccgctcgcg 240

gtgggcaatg cacctacgta cctacaacaa cagttgctgc aacaaattgt accagctctg 300
 actcagctag ctgtggcaaa cctgctgcc tacttacaac agttgcttcc attcaaccaa 360
 ctggctgtgt caaactctgc tgcgtaccta caacagcgac aacagttact taatccattg 420
 gca 423

<210> 4025

<211> 400

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F4

<400> 4025

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 accatgaggg tggtgctcgt tgcctcgtc ctctggctc tcgctgagag cgccaccttc 120
 acgcatacaa gcggcggctg cggctgccag ccaccgctg cggttcatct accgtcgccg 180
 gtgcatctgc cacctcgggt tcacctgcca cctcgggtgc atcttcacc gccgggtccac 240
 ctgcccgcgc cggtcacact gccaccgccc gtccatgtgc cgacgcccgt tcctctgccc 300
 tcgtcaccat gccactaccc tactcaaccg ccccggcctc agcctcatcc ccagccacac 360
 ccatgcccgt gccaacagcc gcatccaagc ccgtgccagc 400

<210> 4026

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F6

<400> 4026

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 tccttatgct ccttggtctt tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
 cacaagctcc tatagcttcc cttcttcccc catacctctc accagcgggtg tcttcaatgt 180
 gtgaaacccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcattctac 240
 cattatcacc cttgttctct caacaaccgt cagccctatt acagcagtta cctttgggtc 300
 atttgggtggc aaaaaacatc agggcacaac aactacaaca acttgtgcta gcaaaccctg 360

ctgcatactc tcagcaacat cagtttcttc cattcaacca actggctgca ttgaactctg 420
ctgcttattt gcaacaa 437

<210> 4027

<211> 306

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F7

<400> 4027

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aggctctatt gcgttggatg atgcaggctc ttgcaactgat gcatagagat gagcaaagcg 120
tgatacgtcg tatcggtaga agatcggtat ccgtgcacgt aaccagctga ggccctgtat 180
tgtgctcccc ctagatggca caactgctgg agccgacgac cttgcacagc tgccattgaa 240
ctatgatcac acaagttcta ccaacgatca tcatgcatga ttcgacactg acgatgcatg 300
cactga 306

<210> 4028

<211> 458

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F8

<400> 4028

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tttcccgcga tgctcgcaag ctccatagc ttcccttctt cccccgtacc tctcaccagc 180
gggtgtcttcg gtatgtgaaa acccaattct tcaaccctac aggatccaac aggcaatcac 240
agctggcatc ttacctttat cacccttgtt cctccaacaa tcatcagccc tattacatca 300
gttacctttg gtgcatttat tggcacaaaa catcagggca caacaactac aacaacttgt 360
gctagcaaac cttgctgcct actctcagca acagcagttt cttccattca accaactagc 420
tgcatatgaac tctgcttctt atttgcaaca acaacaac 458

<210> 4029
 <211> 420
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F9

<400> 4029

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 caacatcaat tatctaactc caaaaacccat gaagctgggtg cttgtgggttc ttgctttcat 120
 tgcttttagta tcaagtgttt cttgtacaca gacaggcggtc tgcagctgtg gtcaacaaca 180
 aagccatgag cagcaacatc atccacaaca acatcatcca caaaaacaac aacatcaacc 240
 accaccacaa catcaccagc agcagcaaca ccaacaacaa caagttcaca tgcaaccaca 300
 taaacatcag caacaacaag aagttcatgt tcaacaacat caactacaac cgcagcacca 360
 acaacatcaa caacaacaac agcaccaaca acaacatcaa tgtgaaggcc aacaacaaca 420

<210> 4030
 <211> 113
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G1

<400> 4030

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 gaagtttttt ggatgatggt tgtggcttcc cagaaataag aaagtacatt tct 113

<210> 4031
 <211> 392
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G11

<400> 4031

tcggtggcca tataaaatct tcaagtatga agattcttcc ctgtaagggt taagtggaca 60
 aaagcataca ggcatttgca tggcaaggac atgaccagg atacaacctt tgagtttgag 120
 aggaagagga acaggcccca ggcgtacgac cgcaatttga cggagcagac cctgaaggct 180
 atcccgttta ttacaaagat taggcatgat cgtatggaaa aacacatctc aaacagacat 240

aaacctggtgta aacgcaagga gatggaaaag gattccaagg agctggagca ggacatcgcc 300
atgctcccga agaagcttat tagcaaccat cttgcggctg agaaaacgaa ggtcaaggtt 360
tgaagtgttc agcagcagac agaagataac gc 392

<210> 4032

<211> 390

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G12

<400> 4032

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agcttggaac gccaaactta agcatacaaa ccgcggcttc cgcttgcaac caacggcggc 120
ggttcattta ccggcgggcg tgcatTTTcc aacttcggtt caactggcaa cttcggtgca 180
TTTTccaacg gcggtccaac ttgcggcggc ggttcaactt ccaacggcgg tccatgttcc 240
ggcgtcggtt catctgccgg cggcaccatg ccaactacct atttaaccgc cccgggctca 300
gactcatacc cagacacacc catgcccgtg ccaacagacg cattcaaacc cgtgccagat 360
gcagggaacc tgcggcggtg gcagcacccc 390

<210> 4033

<211> 385

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-G3

<400> 4033

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aaaccatcag ggcacaacag ctgcaacaac tcgtgctacc agtgatcagc caagtagctc 120
tggcaaacct ttctccctac tctcagcaac aacaatttct tccattcaac caactgtcta 180
cactgaaccc tgctgcttat ttacaacaac aacaactact accattcagc cagctagcta 240
ctgcctactc tcagcagcaa caatttcttc catttaacca attggccgca ctgaacccct 300
ctgcttattt ccagcagcaa atactactac catttgcca gctagctaca acaagcccca 360

cttnctttttt gaaacaacaa caatt

385

<210> 4034

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G4

<400> 4034

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ctaccaagat attagccctc cttgcgcttc ttgccctttt tgtgagcgca acaaatgcgt 120

tcattattcc acaatgctca cttgctccta gtgccattat accacagttc ctccgaccag 180

ttacttcaat gggcttcgaa cacctagctg tgcaagccta caagctacaa caagcgcttg 240

cggcgagcgt cttacaacaa ccaattaacc aattgcaaca acaatccttg gcacatctaa 300

ccatacaaac catcgcaaca caacagcaac aacagttcct accagcactg agccaactag 360

atgtggtgaa cctgtcgcc tacttgcaac agc 393

<210> 4035

<211> 424

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-G5

<400> 4035

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tgctcgttgc cctcgctctc ctggctctcg ctgcgagcgc cacctccacg catacaagcg 120

gcggctgcgg ctgccagcca ccgcccggcg ttcatctacc gccgccggtg catctgccac 180

ctccggttca cctgccacct ccggtgcac tcccaccgcc ggtccacctg ccgcccggcg 240

tccacctgcc accgccggtc catgtgcgc cgccggttca tctgccgccg ccaccatgcc 300

actaccctac tcaaccgccc cggcctcagc ctcatcccca gccacacca tgcccgtgcc 360

aacagccgca tccaagcccg tgccagctgc agggaacctg cggcggttggc agcaccgccg 420

tcct 424

<210> 4036

<211> 392
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-G6

 <400> 4036

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 gcatagcaga ggtagtccaa gaggccgtga gaaagatgga gctcgtggca gaagaaaaga 120
 tgcgacttta caagaaggct cgcctcgccg tggaggcctg cgaccgagag ctggaggaga 180
 aggttaggga agcccaggag ctgaaggcag agcgtcagcg caagaagcag caggtggagg 240
 agctggagag catcgtgcgg ttgaagcagg cggaagcggg gatgttccag ctgaaggcga 300
 acgatgcccg gcaggaggcg gagcgtctgc agagcattgc gtcaccaag tccaagacag 360
 ccgagcagga ctatgccagc atgtacctaa ag 392

<210> 4037
 <211> 251
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-G7

 <400> 4037

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 ttcccagcct ttgtcaagtt cttgaagagc aaggatgcta gtgatgggtc agagaaggcg 120
 cttctggatg agctgcaagc actggatgat catcttaaag ctcatggccc ctacataaat 180
 ggggagaacc tgtcagcgac tgatcttaac ctggggccaa agctttttca cctacacata 240
 gcactggggc a 251

<210> 4038
 <211> 364
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-F12

 <400> 4038

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tacttgcaac agctgcttcc attcaaccaa ctgactgtgt cgaactctgc tgcgtaccta 120
 caacagcgac aacagttact taatccacta gcagtgccta acccattggg cactgccttc 180
 ctacagcagc aacaattgct accatacagc cagttctctt tgatgaaccc tgccttgctg 240
 tggcagcaac ccatcgttgg aggtgccatc ttttagatta catatgagat gtaatcgata 300
 atggtgcctt cataccggca tgtgtttcct agaaataatc aatatattga ttgacattta 360
 tctc 364

<210> 4039

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E1

<400> 4039

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 catcgtagta gtataggcac caaatcaaat ctgcaacatc aattatctaa ctccaaaaac 120
 catgaagctg gtgcttggtg ttcttgcttt cattgcttta gtatcaagtg tttcttgtag 180
 acagacaggc ggctgcagct gtgggtcaaca acaaagccat gagcagcaac atcatccaca 240
 acaacatcat ccacaaaaac aacaacatca accaccacca caacatcacc agcagcagca 300
 acaccaacaa caacaagttc acatgcaacc acaaaaacat cagcaacaac aagaagttca 360
 tgttcaacaa caacaacaac aaccgcagca ccaccaccaa caacaac 407

<210> 4040

<211> 421

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-E10

<400> 4040

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 ctacaacaac ttgtgctagc aaaccttget gcctactctc agcaacagca gttttcttcca 120
 ttcaaccaac tagctgcatt gaactctgct tcttatttgc aacaacaaca actaccattc 180
 agccagctac ctgctgccta cccccagcaa tttcttccat tcaaccaact ggcagcattg 240

aactctcctg cttattttaca gcagcaacaa ctactaccat tcagccagct agctgggtgtg 300
 agccctgcta ccttcttgat acaaccacag ttgttgccgt tctaccagca cgctgcgcct 360
 aacgctggca ccctcttaca actgcaacaa ttgctgccat tcaaccaact tgctttgaca 420
 a 421

<210> 4041

<211> 448

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E11

<400> 4041

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 ggagaactcg acaccatgaa ggtgctgacg gttgcccttg ctctcctggc gctcgctgcg 120
 agcgccgcct ccagtacaag cggcggtgtg ggctgccaga caccaccgtt tcctctaccg 180
 cctccgttct atatgccgc tccgtttctat ctgccgccgc agcagcagcc gcagccatgg 240
 caatacccca ctcaaccacc gcagctaagc ccgtgccagc agttcggatc ctgcggcgctc 300
 ggcagcgctc gcagcccgtt cctggggccag tgcgtcgagt tcctgaggca ccagtgcagc 360
 ccggcgggca cgccctacgg ctgccacag tgccaggcgc tgcagcagca gtgctgccac 420
 cagatcaggc aggtggagcc gctgcacc 448

<210> 4042

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E12

<400> 4042

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 tcaccaacaa tcacaaggcc atgtgcaaca acacgaacag agccatgagc aacaccaagg 120
 acagagccat gagcaacaac atcaacaaca attccagggt catgacaagc agcaacaacc 180
 acaacagcct cagcaatatc agcagggccca ggaaaaatca caacagcaac aatgtcattg 240
 ccaggagcag caacagacta caaggtgcag ctataactac tatagcaaga gctcaaattc 300

aaaaaattgt catgaattcc taaagcagca gtgcagccct ttggtaatgc cttttctcca 360
atcacgtttg atacaaccaa gtagctgcca ggtattgcag caacaatgtt gtcatgatct 420

<210> 4043

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E2

<400> 4043

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gatcgtttgcc cttgctctcc tggcgctcgc tgcgagcgcc gcctccagta caagcggcgg 120
ctgtggctgc cagacaccac cgtttcatct accgcctccg ttctatatgc cgctccggtt 180
ctatctgccc ccgcagcagc agccgcagcc atggcaatac cccactcaac caccgcagct 240
aagcccgtgc cagcagttcg gatcctgcgg cgtcggcagc gtcggcagcc cgttcctggg 300
ccagtgcgtc gagttcctga ggcaccagtg cagcccggcg gcgacgcctt acggctcgcc 360
acagtgccag gcgctgcagc agcagt 386

<210> 4044

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E3

<400> 4044

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tagctctttg tgcaagcgcc actagtgcga cccatattcc agggcacttg ccaccagtca 120
tgccattggg taccatgaac ccatgcatgc agtactgcat gatgcaacag gggcttgcca 180
gcttgatggc gtgtccgtcc ctgatgctgc agcaactggt ggccttaccg cttcagacga 240
tgccagtgat gatgccacag atgatgacgc ctaacatgat gtcaccattg atgatgccga 300
gcatgatgtc accaatggtc ttgccgagca tgatgtcgca aatgatgatg ccacaatgtc 360
actgcgacgc cgtctcgagc attatgctgc aacagcagtt accattcat 409

<210> 4045
 <211> 360
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E4 ,

<400> 4045

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 aggagcacga gggaggcgga gatgatcgag gtggtgctca acgaccgcct ggggaagaag 180
 gtgcgggtca agtgcaacga ggacgacacc atcggcgacc tcaagaagct ggtggcggcg 240
 cagacgggga cgcgccccga gaagatccgc atccagaagt ggtacaacat ctacaaggac 300
 cacatcacc ccaaggacta cgagggtccac gacggcatgg gcctcgagct ctactacaac 360

<210> 4046
 <211> 432
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-008-Q1-K1-E5

<400> 4046

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 ccttatgctc cttgctcttt ctgcatgtgt tgctaacgag acaattttcc ctcaatgctc 120
 acaagctcct atagcttccc ttcttcccc ataccttcca tcaatgatag cttcagtatg 180
 tgaaaaccca gctcttcaac cctataggct ccaacaagca atgcgagcaa gcaacatacc 240
 tttatcacc ttgtttcaac aatcgccagc cctatctttg gtgcagtcac tgggtacaaac 300
 catcaaggca cagcagctgc agcaactcgt gctacctgtg atcaaccaag tagctctggc 360
 aaacctttct ccctactatc agcaacaaca atttcttcca ttcaaccaac tatctacact 420
 gaaccctgct gc 432

<210> 4047
 <211> 436
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E6

<400> 4047

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aacatcatcc acaaaaacaa caacatcaac caccaccaca acatcaccag cagcagcaac 120
accaacaaca acaagttcac atgcaaccac aaaaacatca gcaacaacaa gaagttcatg 180
ttcaacaaca acaacaacaa ccgcagcacc accaccaaca acaacaacaa cagcaccaac 240
aacaacatca atgtgaaggc caacaacaac atcaccaaca atcacaaggc catgtgcaac 300
aacacgaaca gagccatgag caacaccaag gacagagcca tgagcaacaa catcaacaac 360
aattccaggg tcatgacaag cagcaacaac cacaacagcc tcagcaatat cagcagggcc 420
agggaaaatc acaaca 436

<210> 4048

<211> 243

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-E7

<400> 4048

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naatcccacc ggaagcccca cgctccatcg gcacgcgacg ccaacgcgac aagagccccc 120
caaggcccac aagcnccaaa agcnaccgcn cacaccccaa accngccaac aacgacacgc 180
gcaggacgng aaaaccagc nccncagccc aacaggcgcc aacacgcaan cgcagcaagc 240
aac 243

<210> 4049

<211> 406

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-E8

<400> 4049

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ggtgctgata gttgcccttg ctctcctggc gctcgtcgcg agcgccgctt ccagtacaag 120

cggcggctgt ggctgccaga caccaccgtt tcattaccg cctccgttct atatgccgcc 180
tccgttctat ctgccgccgc agcagcagcc gcagccatgg caatacccca ctcaaccacc 240
gcagctaagc cctgccagc agttcggatc ctgccggcgc ggcagcgtcg gcagcccgtt 300
cctggggccag tgcgtcgagt tcctgaggca ccagtgcagc ccggcggcga cgccttacgg 360
ctcgccacag tgccaggcgc tgcagcagca gtgctgccac cagatc 406

<210> 4050

<211> 437

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-F1

<400> 4050

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accatcgcaa cgcagcagca acaagcactg agccacctag ccgtggtgaa ccctatcgcc 180
tacttgcaac aacagctgct tgcattcaac ccacttgctt tggcaaactg agctgcatac 240
caacaacaac aacagttgca acagtttcta ccagcgtcga gtcaactagc catggtgaac 300
cctatcgctt acctacaaca gcaacaactt ctttcatcta gcccgctcgc tatgggcaat 360
gcacctacat acctgcaaca acagttgttg caacaacagt tgctgcaaca aattgtacca 420
gctcttactc agctagc 437

<210> 4051

<211> 418

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F10

<400> 4051

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tccttatgct ccttggtctt tctgcaagtg ttgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc cttcttcccc catacctctc accagcgggtg tcttcaatgt 180

gtgaaaaccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca ggcatcttac 240
cattatcacc cttgttcttc caacaaccgt cagccctatt acagcagtta cttttggtcc 300
atttggtggc acaaaacatc agggcacaa aactacaaca acttgtgcta gcaaaccctg 360
cttgatactc tcagcaacat cagtttctta cattcaacca actggctgca ttgaactc 418

<210> 4052

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-F11

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<210> 4053

<211> 420

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<213> Zea mays

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<400> 4053

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aacgggacgc ccagcccgcg ggatcacgcc gagaaggatc cgcccaatgt gctagacgtt 180
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tgttcgtgtg ctctgacctg ttttaagcca atatgccgtt aacgaaacac cttagagtcg 300
ctattatcga tagcaatcca gcgctgaagt caagaagtta cctgggcaaa aacagtatac 360

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<210> 4054

<211> 376

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C4

<400> 4054

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caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180

caatgatagc ttcatgtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa 240

tgcagcaag caacatacct ttatcacctt tgttgtttca acaatcgcca gccctatctt 300

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tgatcaacca agtagc 376

<210> 4055

<211> 395

<212> DNA

<213> Zea mays

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<400> 4055

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actaccgctc tgctctgccg acgcgcgtct cgctcgccgg gcagcccgtc agcgtcagcg 180

tgtcctcgctc gtctcggggc cggcggacct gcatgtgctc gccgaccaac caccggggct 240

cgttccgctg cagcctgcac aaggagcgcg tcaagcctgc ggcgggggcc cacggccacg 300

ggcacggcaa gccgagctcg ccgtcgtcgc cccgaccgt cagcgcctg tcgcggggcg 360

cgggcaggcg gatgggcagc gcgctggtgc ggatc 395

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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C6

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atcttacctt tatcaccctt gttccttcaa caatcatcag ccctattaca gcagttacct 300

ttgggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgc 355

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<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C8

<400> 4057

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tcgcgcgcgc cgcctctgat ctccgcgagg ttgtcaggat tcaatatgtc gaccagcaca 180

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<210> 4058

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C9

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atgtggactt ggtattaatt tggcaacttg cggatactgg tatcatatat gattcagatt 360
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<210> 4059

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D1

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tacctttggt gcatttattg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc 360
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<210> 4060

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D10

<400> 4060

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 gacgtggggc ccgtggcgac gctgctc 387

<210> 4061
 <211> 398
 <212> DNA
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 <223> Clone ID: LIB3061-008-Q1-K1-D12
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 aacaacttgt gctagcaaac cttgctgcct actctcagca acagcagttt cttccattca 300
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<210> 4062
 <211> 229
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-008-Q1-K1-D2
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<210> 4063
 <211> 403
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D3

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gttccctcaa caatcatcag ccctattaca gcagttacct ttggtgcatt tattggcaca 180
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taaagctttt tgtctgatgt ttgtggcttc ccagaaataa gaa 403

<210> 4064

<211> 362

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D4

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gcatcaaagg gcggttatat atgtgttgta tgtgtgattc cataccctaa tatagaggtg 180
gttggtctaa aaaaaaaaaa aaaaaataaa aacaaaaact aaaatataaa caaataaaaa 240
aaaaaaaaaga aacaataagg acctacaaca tcaaccctta gaactaaaaa ataccacaaa 300
tgaaataact aaactcttct ataccctgaa tgataactaa aaaaaaaaac gggggggccc 360
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<210> 4065

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D5

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gcgcccagcg cagcatgccg ctgtcgtctt cgttcgtatc cacgtacgta cgacggccca 240
gctgacccgc ctgcctaccg gtccgttctc tgcgactgga tggtcggtcg gcgggcgctc 300
cggcgagggc tttcggtagc tcgtggataa gcacgagggg agggcggtgg tgggcgggaa 360
cggagggcga ggcggcggcc ccaagtggcg gtc 393

<210> 4066

<211> 407

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D6

<400> 4066

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aacgcataca ctacaacaac agtttctgcc atcactgagc cacctagccg tgggtgaacc 360
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<210> 4067

<211> 445

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D7

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<210> 4068

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-D8

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<210> 4069

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C3

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<211> 365

<212> DNA

<213> Zea mays

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<210> 4071

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-C3

<400> 4071

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<210> 4072

<211> 425
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-027-Q1-K1-C4

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<210> 4073
 <211> 363
 <212> DNA
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 <223> Clone ID: LIB3061-027-Q1-K1-C5

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 <211> 435
 <212> DNA
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<223> Clone ID: LIB3061-027-Q1-K1-C6

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<211> 415

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-C7

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<210> 4076

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-C8

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 aatgctcact tgctccaagt tccattatta cacagttcct cccaccagtt acttcaatgg 180
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<210> 4077
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 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-027-Q1-K1-C9
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<210> 4078
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<210> 4079

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D10

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<210> 4080

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D11

<400> 4080

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 tggctcgcgc tctccggcgc cgcaactgacg ctcgccagat ctaagaagga cctgacggag 180
 gttacccaca aggtctactt ctacatcgag atcgacggct agcccacagg ccggattgtc 240

atggggccttt ttgggaagac tggttcctaag acggcagaga acttccgagc tctttgcaca 300
 ggagagaaaag gggtcggcaa gaggggcaaa gccctccact acaagggaag tcagttccac 360
 agaatcatgc acagcttcat gctccaagga ggtgacttca ctctcgtgga cgggaggggt 420
 ggtgaatcta tcta 434

<210> 4081
 <211> 229
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-027-Q1-K1-D12
 <400> 4081

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 gcaacaattg ctgccattcg accaacttgc tttgacaaac ccagcagtg tctaccaaca 120
 acccatcatt ggtggtgccc tcttttagat tgcttatgag ttatagttca ataataaagt 180
 tttttttgct gatatttggt gtttcccaga aataagaaag tacatttct 229

<210> 4082
 <211> 419
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-027-Q1-K1-D3
 <400> 4082

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 gctccttgga ctttctgcat gtgtagctac cgcaaccatt ttgcaacaat gctcacagcc 120
 tcctatagct tacattgttc acacatacct ataaccagcg gtgtattcaa tgtgtgaaac 180
 cccaagagtt caaccctaca ggatacaaca ggcaatcgca acaggcatct taccattatc 240
 acccttgctc ctacaacaac cgtcagacct attacagcac atacctctgg tccattaggt 300
 ggcacaaaac atcagggcac aacaactacy acaactcgtg ctagcaaacc ttggtgcata 360
 ctctcagcaa catcagtttc ttccattcga ccaactgtct gcattgaact ctgctgctt 419

<210> 4083
 <211> 370
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-D5

<400> 4083

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aaggacctcg tcggcacatt cgccttcgtc gtacttcgac agccgctccg gagcctaatt 120
atgctgactt ggccgaggct acacaagaat agcgacacac cctgtggact acggcgtctc 180
agactattgc ttcagattga tcagcgtctg accggtatct cgggtcaagca cggttgctgc 240
gagagatacg cgcacttccg cgcagctctgc atgatgcaca gagacgaacg tctcaacagc 300
ttcgagctct tcatgaacag gctaaatgtc atgccatgcy tacactgcta atgcgccatg 360
tacggatcca 370

<210> 4084

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-C12

<400> 4084

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gagatggcgg ggggccctga tgtcgcgggc ttgatcgagg atgatgcggt ctccgtcatc 120
acggaggggt tagtggtgtg tgacatatgt ggcagtggta gtgcccctca tcttattgca 180
aactgcgctc ggtgcaatgc gcgtgagcac ggggtactgta tggagggggt gacgttcctg 240
attccgctca tatggttttg taatagatgc caacgcaacg ccaacagggc acccagatcc 300
taaccaaggt tctggagatg gtgttgggcg ccaaattccc ttgaggaagg tagcagctag 360
tgtcgtgtga gaaatgttgg cttgtttttg tggttgtgtg tattggcaat cgctggagcc 420
tggagctgtg tgta 434

<210> 4085

<211> 229

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A6

<400> 4085

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agataggctc caagggctgc agtggaagga gcaccagggt aggaagatca ccgacaagggt 120
gttcgaccgc ctcacggatg acgcccagaa gcgcgacatg gaggcctca gattcgacga 180
ggctctacatc gtcgtactct gcgtctacaa tgacatgaac aagtacttg 229

<210> 4086

<211> 306

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A7

<400> 4086

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tatcgagaag acgttggcac aatcagatga ttgctcgatg cacacttgct gctcactgag 120
cagccttcca agttggatac ttatgatcca agatcacctt tcttactga taccactatg 180
ctaggctacg acgcaattgt aaaagagcaa gatgaaagac gcatagatct caaatggcag 240
cttactgaga gaatgcaaca tctatcattc tgtgatagca gtctgtcac gtgtcatctc 300
tgcatg 306

<210> 4087

<211> 430

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A9

<400> 4087

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tgcaacagtt gctgcccttt gtccaacttg ctttgacaaa cccagcagac ttctaccaac 180
aacacatcat tggcgggtgcc ctctcttaga ttgcttatta ctagcaattc aataatgaac 240
ttttacgggt gatgtatgtg gcctgctaga aataagaagt catatttcca aaagatgtac 300
agactcatcg acgagtacaa gttgaagggc catatacggg ggatctcggc gcagatgaac 360

cgcgctccgca acggggagct gtaccgatac atttgcgata cgaagggcgc attcgtgcag 420
cctgcgttct 430

<210> 4088
<211> 421
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B1

<400> 4088

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cctccttatg ctcccttggtc tttctgcaag tgctgctacg gcgaccattt tcccacaatg 120
ctcacaagct cctatagctt cccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctatag gatccaacag gcaatcgcag ctggcatctt 240
acctttatca cccttggtcc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcatttattg gcacaaaaca tcagggcaca acaactacaa caacttgtgc tagcaaacct 360
tgctgcctac tctcagcaac aacagtttct tccattcaac caactagctg cattgaactc 420
t 421

<210> 4089
<211> 166
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B10

<400> 4089

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ggtggtgccc tcttttagat ttcttatgag ttatagttca ataataaagt tttttgtctg 120
atgtttgtgg cttcccagaa ataagaaagt acatttctag attctt 166

<210> 4090
<211> 385
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B11

<400> 4090

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ctagtgccgt tactccacag ttctataaac cagtatctac aacggggtca gaacatgcaa 180
ccgtgcaagc ctacacgcta cagctagcgc ttgcgccag cgccttacia caacctattg 240
cacaattgca acatcaatac ttggcacatc taacctgca aaccattgta acgcaacagc 300
tacagcaaca acagctgctg ccattactga tccacctagc cgaggcgaac cctgtgacct 360
acttgcaaca gcagctgttt gcata 385

<210> 4091

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B12

<400> 4091

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attctactgc agatactggc atgcgctttg tacaacaact ggtggcccat gtttagcagct 120
ctcatgtacg tccttgtacc aatgccatgc ctgttttttg gtgggtggatc cacacacttc 180
ttgaccagca gagaagggtg aggggtggatt aatgctgcaa aattcttgac tgggtgctcg 240
gccatgggaa gccttgctat tccagcaatt ctgaggcagc ctggcttaat cgagaccggg 300
gccatgttca tcgagttcac gtccttcttc atccttgtat gcacagtgct gtgcttccat 360
agggcgactc tggatgaaga ctggtaaatt cgcatttcac cgtcaccctg aaccctagcg 420
gttcttggtc gcttc 435

<210> 4092

<211> 372

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-027-Q1-K1-B2

<400> 4092

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agaagagatg gctaagatcg ccgcggcggc gccggcggcg ctgtgcttcg cggccctggt 120
ggccgtggcc gtctgccaag gcgaggtcga gcggcagagg ctcagggacc tgcagtgtg 180
gcaggaggtc caggagagcc cgctcgacgc gtgccgccag gtccctcgacc ggcagctaac 240
cggcggcggc gccggcggcg gcgttggccc gttccggtgg ggcaccgggc tccggatgcg 300
gtgctgccag cagctccagg acgtgagccg cgagtgccgc tgcgccnca tccggagcat 360
ggtcagggga ta 372

<210> 4093

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B3

<400> 4093

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gttgcaactg ttagagctcc tcaattggat ggctgttga ttttcagaag cgaaaagaca 120
gcttcgtcag agatagagct ctagtcctac gggagttgta ctctgctgca cagcgcgagt 180
cttgcatggg gcaacaagaa attctggaaa gagagaacct accaagagct gagacgtcta 240
ttcatggaat cgtgacaaac atcgctaggt atgacactga acatgaaaag ttggctccac 300
ccaagaatga tctgatgaat cacagccgca gcaaccctgc aaaacggcac gtggaaggca 360
ctgattgccca ctcgctcattg ccaaagatac tgaagtactt tctgaaaga 409

<210> 4094

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B4

<400> 4094

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attttcccac aatgctcaca agctcctata gcttcccttc tttccccgta cctctcacca 180
acggtgtctt cggatatgtga aaacccaatt cttcaaccct acaggatcca acaggcaatc 240

gcagctggca tcttaccttt atcacccttg ttcctccaac aatcatcagc cctattacag 300
cagttacctt tgggtgcattht attggcacia aacatcatgg cacaacaact acaacaactt 360
gtgctagcaa accttgctgc ctactctcag caacagcagt ttct 404

<210> 4095

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B5

<400> 4095

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cacctacata cctgcaacaa gaattgttgc aacagattgt accagctcta actcagctag 120
ctgtggcaaa ccctgttgc tacttgcaac agctgcttcc attcaaccaa ctaactatgt 180
cgaactctgt tgcgtaccta caacagcgac aacagttact taatccattg gcagtggcta 240
acccattggc cgctgccttc ctacagcagc aacaattgct gccatacaac cggttctctt 300
tgatgaatcc tgtcttgcg aggcagcaac ccatcgcttg aggtgccatc ttttagatta 360
catatgagat gtactcgata atggtgccct cataccggca tgtgttttct agaaataatc 420
aatata 426

<210> 4096

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B6

<400> 4096

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ccttatgctc cttggctctt ctgcaagtgc tgctacggcg accattttcc cgcaatgctc 120
gcaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg gcattctacc 240
tttatcacc ttgttcttcc aacaatcatc agccctatta caacagttac ctttggtgca 300
tttattggca cataacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360

tgcctactct cagcaacagc agttttctttc attcaaccaa ctaggttcat tgaactctgc 420
 ttc 423

<210> 4097

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B8

<400> 4097

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 cattgcaacg caacaacaac aacaacagtt tctgccatca ctgagccacc tagccgtggt 120
 gaaccctgtc acctacttgc aacagcagct gcttgcatcc aaccacttg ctctggcgaa 180
 cgtagctgca taccagcaac aacaacagct gcaacagttt atgccagtgc tcagtcaact 240
 agccatgggtg aaccctgccg tctacctaca actactttca tctagcccgc tcgcggtggg 300
 caatgcacct acgtacctac aacaacagtt gctgcaacaa attgtaccag ctctgactca 360
 gctagctgtg gcaaaccctg ctgcctactt acaacagttg ctttcattca accaactggc 420
 tgtgtcaaac tc 432

<210> 4098

<211> 423

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-B9

<400> 4098

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 cgagaagaac ccccgtcgta tctttgaggg tgaagcactt cttcgacgca tgaaccgcta 180
 tgggctgctt gcttaggggtc agaacaagct tgattatgta cttgccctca cgttgagaa 240
 cttacttgca tggcgggattc aaacacttgg cttcaaggct ggcatggcca tatccattaa 300
 ccatgctgga gtcttgatca agcagggtta catcagggtt ggcaggcaaa ttgtcaacgt 360
 accatcattc atgggtgaggg tggaatctga aaatcacatt gacttttcaa tgtcaaacc 420

att

423

<210> 4099

<211> 373

<212> DNA

<213> Zea mays

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<400> 4099

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atcgttctcg tcgtgtgcct ggctctgtca gctgccagcg cctctgcaat gcagatgccc 120
tgccctcgcg cggggctgca gggcttgtac ggcgctggcg ccggcctgac gacgatgatg 180
ggcgccggcg ggctgtaccc ctacgaggag tacctgaggc agccgcagtg cagcccgtg 240
gcggcgggcg cctactacgc cgggtgtggg cagccgagcg ccatgttcca gccgctccg 300
caacagtgct gccagcagca gatgaggatg atggacgtgc agtccgtcgc gcagcatctg 360
cagatgatga tgc 373

<210> 4100

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-C10

<400> 4100

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ccaagatatt ttccctcctt atgctccttg ctctttctac atgtgttgct aacgcgacaa 120
ttttccctca atgctcacia gctcctatag cttcccttct tccccatac cttccatcaa 180
ttatagcttc agtatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg 240
cagcaagcaa cataccttta tcgcccttgt tgtttcaaca atcaccagcc ctatcttttg 300
tgcagtcatt ggtacaaacc atcagggcac aacagctgca gcaactcgtg ctacctgtga 360
tcaaccaagt agctctggca aacctttctc cctactctca gcaacaacaa tttcttccat 420
tcaaccaact gtctacac 438

<210> 4101
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A5

<400> 4101

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catgcttcgc cgataaagac ttgtagagaa actgcaaata tactgcaaaa tcattttcct  180
gaaaggctgg ccattggatt tctatttaat ccccccaaag tatttgaagc tttttataag  240
gtcatcaaga ttttcctcga tccaaaatca gtcgagaagg tgaacttcgt gtacgagaag  300
gatgaggaga gcatgaaggt catgtacaaa tacatcgatc cggaagtcct ttctgtagag  360
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gatgaca                                           427

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<210> 4102
 <211> 450
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G8

<400> 4102

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ctgctgctta cttgcaggca caacagctac taccattcaa ccaacttgct gggagccctg  180
ctgccatctt attgcagcaa cagttgctgc cattccgtct acaagttggt gcaaacattg  240
ctgctttctt gcaacaacaa caattgctgc cattttaccc acaggttggt ggaaacatta  300
acgccttctt gcaacaacaa caattgctgc cattctaccc acaggatgtg gcaaacattg  360
tcgccttctt acaacaacag caattgctgc catttagcca actcgctttg acgaatccta  420
ccaccttatt gcatcagccc accattgggtg                                           450

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<210> 4103
 <211> 278

<212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H1

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 aatatattat ccgttctttt tctaattgcc cttgatgtta gctctacaaa ttcattcatt 120
 attccacaat gctcacttgc tcctagtacc attattccac agttccttcc accatttact 180
 tcaatgagct tcgaacacct atctatacaa gccaacattc atcaacaatc tctttcatct 240
 aacttcttac aacaaccaat tatccaattg taacaaca 278

<210> 4104
 <211> 304
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H10

<400> 4104

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 ctgctaccag catcgctcct gaagaagacg cttcttccct gaggccgtcc agccagcggg 180
 gtctggcggt atgcgcagac ccttgtcttg gaccttactc tattctacgt gccatcgcag 240
 ctggcatctc acctttatca cccttgtttc gtcaacaatc atgaggccta ttacaacaga 300
 tacc 304

<210> 4105
 <211> 426
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H11

<400> 4105

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 tcctatagct tcccttcttc ccccgtagct ctcaccagcg gtgtcttcgg tatgtgaaaa 180

cccaattctt caacctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgccta 360
ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact ctgcttctta 420
tttgca 426

<210> 4106

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H12

<400> 4106

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caagctccta tagcttcctt tcttaccctg tacctctcac cagcgggtgc ttcgggtatgt 180
gaaaacccaa ttcttcaacc ctacaggatc caacaggcaa tcgcagctgg catcttacct 240
ttatcacctt tgctcctcca acaatcatca gccctattac agcagttacc tttggtgcat 300
ttattggcac aaaacatcag ggacacaaca ctacaacaac ttgtgctagc aaaccttgct 360
gcctactctc aacaacagca agttcttcca ttcaaccaac tagcttcatt gaactct 417

<210> 4107

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H2

<400> 4107

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ctcgcaagct cctatagctt ccttcttcc cccgtacctc tcaccagcgg tgtcttcggt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag ctggcatctt 240
acctttatca ccttggttcc ttcaacaatc atcagcccta ttacaacagt tacctttggt 300

gcatttattg gcacaaaaca tcatggcaca acaactapaa caacttgtgc tagcaaacct 360
 tgctgcctac tctcagcaac agcagtttct tccattcaac caactagggtt cattgaactc 420
 tgcttcttat ttgcaacaa 439

<210> 4108
 <211> 442
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-026-Q1-K1-H4
 <400> 4108

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 agtcgcccc acccaccac cctctgccgc gggcggtgag cgggcggcgg acgagatgcc 180
 gtgcgcaggc gatctggacc ggcagatcgc gcagctgcgc gactgcaagt acctgcccga 240
 ggcggaggtc aagggtgctct gcgagcaggc caaggccatc ctcatggaag aatggaacgt 300
 gcagcccgtg cgcctgcccg tcaccgtccg cggcgacatc cagggccagt tctatgacct 360
 catcgagctc ttccgcatcg gcggcgactc tgccgacacc aactacctgt tcatgggcga 420
 ctacgtcgat cgtggctatt at 442

<210> 4109
 <211> 436
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-026-Q1-K1-H5
 <400> 4109

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 ggctgccatg gaaccaactg gtggcacaga tcgtctctga tgatgtacag ggggagcagc 180
 tagtatcatt caaccagcta tctgacgtga gcgctgttac cttgttgatc cagccacacg 240
 tgggtgccgtt ctaccagctc gctgaggcta aacttgcta caatcttaca actgacacaa 300

ttgttgccag tctaccaact cgctatgact aactcagcaa cgtgctagct actgcccac 360
atgggtggtg ccacatgtta gacctcttag gagttgtagt tgagtatgca agttttattgt 420
cagatgatcg tggctc 436

<210> 4110

<211> 297

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H7

<400> 4110

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cttgatacaa ccacagttgt tgccgttcta ccagcacgct gcgcctaacg ctggcaccct 120
cttacaactg caacaattgc tgccattcaa ccaacttgct ttgacaaacc cagcagcggt 180
ctaccaacaa cccatcattg gtggtgccct ctttttagatt tcttatgagt tatagttcaa 240
taataaagtt ttttgtctga tgtttgtggc ttcccagaaa taagaaagta catttct 297

<210> 4111

<211> 117

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H8

<400> 4111

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ctttaacaac cataactagga ttatctgagc aagtacacta tcgctactgc gggctgc 117

<210> 4112

<211> 404

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-H9

<400> 4112

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attttgcta cttatgctca taggtacttt ctgcaagtgc tgctacggcg accattctcc 120

cgcaatgctc gcaagctcct atagcttccc ttcttgccctc gtacctctca ccatcggtgt 180
cttcggtatg tgaaaaccca attcttcaac cctacaggat ccaacaggca atcgcagctg 240
gcatctcacc tttatcacc ttgttcattc aacaatcatc agccctatta caacagttac 300
ctatggtgca ttgattgtca caaaacatca cggcacaaca actacgacaa cttgtgctag 360
caaaccttgc tgcctactct catcatcagc agtttcttgc attc 404

<210> 4113

<211> 421

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A12

<400> 4113

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caggcaatcg cagcaggcat cttaccttta tcaccttgt tcctccaaca accgtcagcc 120
ctattacagc agttaccttt ggtgcatttg ttggcacaaa acatcaaggc acaacaacta 180
caacaacttg tgctaggaaa ccttgctgcc tactctcagc aacagcagtt tcttacattc 240
aaccaactgg ctgcattgaa ctctgctgct tatttgcaac aacaactacc attcagtcag 300
ctagctgctg cctaccccc gcaatttctt ccattcaacc aactggcagc attgaactct 360
gctgcttatt tacaacagca acagctacca ccattcagcc agctagctga tgtgagccct 420
g 421

<210> 4114

<211> 416

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-027-Q1-K1-A2

<400> 4114

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cacttgggat gaattcacia ctgctctgaa taacaaaaag ttgatcttgg ctccatggtg 120
tgatgaggag gaaattgaga aagatgtaaa aactcggaca aaaggggaac ttggagctgc 180
gaaaacattg tgtactccat ttgagcagcc agaacttcca gaaggtacce tgtgctttgc 240

atctggaaag ccagcgaaga agtgggtcggt ctggggccgc agctactgat tgcctgtgct 300
 gggattatnt ctggattcag ttctagttag ttatgtagct ttgaagtgtc ggatacanat 360
 ccaaaaatcc atttacattg cgtttttacat cgacttgcag ttctcatgtc atcact 416

<210> 4115

<211> 310

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A3

<400> 4115

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 aggctcaggc tccctcaacc aatttggttc ccttttgctg tggttgctgg aaggccgtcc 120
 ttcggatggc ttagttccct cctccttaag gtccaaaaag gtccctgatca agggccagaa 180
 taccctcgatc caacttgaaa tggaaatgat ccagggacat aaaatcatgg ggattaaagt 240
 gggcccatga ctgaactcga gtgctttggc cgcagcagtc tctttctaata atgatataat 300
 gccagcacct 310

<210> 4116

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-027-Q1-K1-A4

<400> 4116

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 gcagctctgt gacttgtgag gaggaaggga ggaagaaagc ggatccatgg cgtcgaagcg 120
 gatcctcaag gagctcaagg acctgcagaa ggatcctccc acctcttgca gcgcaggccc 180
 tgttgccgaa gatatgttct actggcaggc gacgattatg gggccatcag atagcccata 240
 cgctgggtggc gtatTTTTTgg tcaactattca ctttccaccg gactacccat tcaaaccacc 300
 gaaggttgca ttcaagacga aggtttacca tccgaatatc aacagcaacg ggagcatctg 360
 tcttgatatc ttgaaggagc aatggagccc tgcactgaca gtttctaaag tcctcctct 419

<210> 4117
 <211> 429
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G7

<400> 4117

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accaagatat tagcgctcct tgcgcttctt gccctttttg tgagcgcaac aaatgcgttc  120
attattccac aatgctcact tgctcctagt gccattatc cagagttcct tccaccagtt  180
acttcaatgg gcttcgaaca cctagctatg caagccaaca tgcaacaaca agcgcttgcg  240
gcgagcgtct tacaacaacc aattgcccac ttgcaacaac aatccttgcc acatctaaca  300
atacaagcca tcacaacgca acagcaacaa ctgttcctac cagcactgaa ccacctagcc  360
atggtgaacc ctgccgtcta cttgcaagag catctgcttg cattcaacc acttgcctcg  420
gcgaacgta                                     429
  
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<210> 4118
 <211> 438
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B1

<400> 4118

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cttcattca accaactagc tgcattgaac tctgcttctt atttgcaaca acaacaacta  120
ccattcagcc agctatctgc tgcctacccc cagcaatttc ttccattcaa ccaactgaca  180
gcattgaact ctctgcttta ttacagcag caacaactac taccattcag ccagctagct  240
gggtgtgagcc ctgctacctt cttgacacaa ccacagttgt tgccgttcta ccagcacgct  300
gcgcctaacg ctggcaccct cttacaactg caacaattgc tgccattcaa ccaacttgct  360
ttgacaaacc cagcagcatt ctaccaacaa cccatcattg gtgggtgcct cttttagaat  420
tcttatgagt tataggtc                                     438
  
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<210> 4119
 <211> 415

<212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-B10

 <400> 4119

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 ccaagatatt ttccctcctt atgctccttg ctctttctgc atgtgttgct aacgcgacaa 120
 ttttccctca atgctcacia gctcctatag ctcccttctt tccccatac cttccatcaa 180
 tgatagcttc agtatgtgaa aaccagctc ttcagcccta taggctccaa caagcaatcg 240
 cagcaagcaa cataccttta tcacccttgt tgtttcaaca atcgccagcc ctatctttgg 300
 tgcagtcatt ggtacaaacc atcagggcac agcagctgca gcaactcgtg ctacctgtga 360
 tcaaccaagt agctctggca aacctttctc cctactctca gcaacaacaa tttct 415

<210> 4120
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-B11

 <400> 4120

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 gaagcgccca acccgccata ttcaagagcc ctcatcgaaa gcatgaagga gatctgactg 120
 atggcttggg gtcgcggtgg tccgctacac ctgaatcaca ccatcgaagt cgttcgaacc 180
 cggcatgtgc tcgagtaggg gtcgtcgggt aactgagtg tgtccaggac ctcttcgtgc 240
 aagctcgatg atcggagagc tcgtcgccat gaaaactgag atggatcgcc gccgtgaatc 300
 tatgcctggc gtgggtcaaga acaggtacca caagatgagg cgcattggagg atgttgtgac 360
 atgttcgtgc gaggtctaag ccgtcgtctc ccaatcaact ttgggttgct ggatcattg 419

<210> 4121
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-B12

 <400> 4121

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gagtgacccg attgtcggag gggaggcgcc ttctcgctcg aggtgggaag cgagccggtg 120
ggcgcccggtg gaggtgcgc tgaatcggat gagtaaattg ctggtggctg gttgttttgc 180
ttttgcagct atttgaagc gtgatgctga aatcatgtgg gttttgctgg gtgcggttgg 240
caactctctg ctttcgttgg ttctcaagaa gatgctaaac catgaaagac ctgcaccagc 300
tttgcggtct gatcctggga tgccatcgct ccatgcacaa tccatattct atgctgcgac 360
cgtcctagct ctttcattgt actactggct tgggacaaat tatctgacca tgattcttg 419

<210> 4122

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B2

<400> 4122

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gtcaggctct acgtccgggg caccatcctc ggatacaaga ggtccaagtc gaaccagtac 120
gagaccacgt cgctcgttca gatcgagggg gtgaacacca aggaggacgt cgcgtagtac 180
gctggcaagc gcatggcgta catctacaag gctaagacca agagcagcga gacccgctac 240
aggtgcatct ggggcaaggt caccgccc caccgcaact cgggcgctcg cgcgcgaag 300
ttcaagtcca accttcgcc tgagtccatg gggcgcaagg tcagagtgtt catgtacccg 360
agcagcatct aaggtaggt ttttggtgga gtaaagggtg actctaaat 409

<210> 4123

<211> 380

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B3

<400> 4123

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gtccttggt ctttctgcaa gtgttgctac cgcaaccatt ttcccacaat gtcacaagc 120
tcctatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa tgtgtgaaac 180

cccaattgtt caaccctaca ggatccaaca ggcaatcgca acaggcatct taccattatc 240
acccttgttc ctccaacaac cgtcagccct attacagcag ttacctttgg tccatttggt 300
ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 360
ctctcagcaa catcagtttc 380

<210> 4124

<211> 279

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B4

<400> 4124

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gcaggagcca ccgccgcctc atcctcgcag ccgccgtcct gctctccgtg ctccgaggctg 120
ccagcgccag cgccgggacc tcctgcgtgc cgggggtgggc catcccgcac aaccgctcc 180
cgagctgccg ctggtacgtg accagccgga cctgcggcat cgggccgcgc cttccgtggc 240
cggagctgaa gaggagatgc cggcgggagc tggcggaca 279

<210> 4125

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B5

<400> 4125

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tagcaaacct tgctgcctac tctcagcaac agcagtttct tccattcaac caactagctg 180
cattgaactc tgcttcttat ttgcaacaac aacaactacc attcagccag ctacctgctg 240
cctaccccca gcaatttctt ccattcaacc aactggcagc attgaactct cctgcttatt 300
tacagcagca acaactacta ccattcagcc agctagctgg tgtgagccct gctaccttct 360
tgatacaacc acagttgttg ccgttctacc agcacgctgc gcctaacgct ggcacctct 420
tacaactgca acaa 434

<210> 4126
 <211> 410
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-B6

 <400> 4126

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gcaacatcag tttcttccat tcaaccaact ggctgcattg aactctgctg cttatttgca 120
acaacaatta ccattcagcc agctagttgc tgcctacccc cagcaatttc ttccattcaa 180
ccaactagca gcattgaact ctgctgctta ttacagcag caacaactac taccattcag 240
ccagctagct gatgtgagcc ctgctgcctt cttgacacaa caacagttgt tgccgttcta 300
cctgcacgct atgcctaacg ctggcaccct cttacaactg caacaattgc tgccattcaa 360
ccaacttgct ttgacaaacc caacagtgtt ctaccaacaa cccatcattg 410
  
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<210> 4127
 <211> 419
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-008-Q1-K1-B7

 <400> 4127

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gcggcgacaca tggcggcacc acctacaaag gctacaccat cccacacaac aagcgctggc 120
acaccgtcgc cggcaagggc ctgtgcgctg tgatgtgggt ctgggtcttc tacagggcta 180
agcaggatgg tgctacgctc ttgggtttgc gtcaccttg ggatgggcat gatgaccact 240
ctcatgggtca tggacatggg aatgaggcat cgtgacatta agttgcctac tctcggcgga 300
cggtgatttg atgctttgca tgtcacaaca actaaagatt gagttaataa attctaccac 360
ccttcattgg actcatgttg tatgtactca tgttgatgc aactgggtta gcacaaact 419
  
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<210> 4128
 <211> 442
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B8

<400> 4128

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caattttccc tcaatgctca caagctccta tagcttccct tcttccccca taccttccat 180
caatgatagc ttcagtatgt gaaaaccag ctcttcagcc ctataggctc caacaagcaa 240
tcgcagcaag caacatacct ttatcacctt tgttggttca acaatcgcca gccctatctt 300
tgggtgcagtc attggtacaa accatcaggg cacagcagct gcagcaactc gtgctacctg 360
tgatcaacca agtagctctg gcaaaccctt ctcctactc tcagcaacaa caatttcttc 420
cattcaacca actgtctaca ct 442

<210> 4129

<211> 190

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-B9

<400> 4129

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aaaaaaaaa aaaaaaaaaa aaaaaaagga cagacgaaaa aaaagaacac ggcaaaacaa 120
acaaaaaaca agcaaaagca aaaaaaaaaac aaaagagaaa cctaaaaaca aggggacggg 180
ccgtcgaggg 190

<210> 4130

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C1

<400> 4130

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aagcggcggc tgtggctgcc agacaccacc gtttcatcta ccgcctccgt tctatatgcc 120
gcctccgttc tatctgccgc cgcagcagca gccgcagcca tggcaatacc ccactcaacc 180

accgcagcta agcccggtgcc agcagttcgg atcctgcggc gtcggcagcg tcggcagccc 240
gttcctgggc cagtgcgtcg agttcctgag gcaccagtgc agcccggcgg cgacgcccta 300
cggctcgcca cagtgccagg cgctgcagca gcagtgtgc caccagatca ggcaggtgga 360
gccgctgcac cggtaccagg cgacata 387

<210> 4131

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C10

<400> 4131

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gttggtatgca agcagctgtt gttgcaggta ggcgataggg ctcaccgaag gtaggtgggt 120
cattacatgc tgttacatca cagagatggt tggcatgggt agatatgata tggattgaga 180
atgtgacagt aaataatttg aatgagtcga tggctcatga tctacgggtat agcgcaagtc 240
cgtgatcggg cgcttcaatc atgataagac acgttttggt tcgttgctgt ctacacgata 300
atgctggactt ggtattaatt tcacaactgc aaatactgtg atcatatatg atatagatta 360
taaccacat gctgatatac aggcgatgaa caaggcacac aaaattggac aat 413

<210> 4132

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-C12

<400> 4132

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atgctcactt gctcctagtt ccattattcc acagctccta ccaccagata cttcaatggc 180
cttgaacac ccagctgtgc aagcctatag gctacaacaa gcgattgcgg cgagcgtctt 240
acaacatcca attgcccatt tgcaacaaca atacttggca catataacaa taaaaccat 300
cgcaacgcaa cagctacaac agttactacc agcactgagc cacctagcca tgggtgaacc 360

tgtcgcctac ttgcaacagc agctgcttgc atccaacca cttgctctag caaa 414

<210> 4133

<211> 371

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-C2

<400> 4133

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atggatggat cctcacgagg aggagttgtc aactgacgga cttttgaccc agtgaacaca 180

ctcacgcgac cgcgtcggtc tctctgttct ttttgtagac atatagtaga tatacaaatt 240

cgaaaggaaa tggaagaaaa gaagagagaa tgaggcgaaa agaaatggaa agaattccaca 300

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ccgtctgata g 371

<210> 4134

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A9

<400> 4134

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tccttatgct ccttggtctt tctgcaagtg ctgctacggc gaccattttc ccgcaatgct 120

cgcaagctcc tatagcttcc cttcttcccc cgtacctctc accagcgggtg tcttcggtat 180

gtgaaaaccc aattcttcaa ccttacagga tccaacaggc aatcgcagct ggcattctac 240

ctttatcacc cttgttctc caacaatcat cagccctatt acaacagtta cctttggtgc 300

atttattggc acaaaacatc agggcacaac aactacaaca acttgtgcta gcaaacttg 360

ctgcctactc tcagcaacag cagtttcttc cattcaacca actaggttca ttgaactctg 420

cttcttattt gcaacaa 437

<210> 4135
 <211> 466
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-H4

<400> 4135

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 ttagtgagcg caacaaatgc gttcattatt ccacagtgc cacttgctcc tagtgccagt 180
 attccacagt tcctcccacc agttacttca atgggcttcg aacatccagc cgtgcaagcc 240
 tacaggctac aactagcgct tgcggcgagc gccttacaac aaccaattgc ccaattgcaa 300
 caacaatcct tggcacatct aaccctacaa accattgcaa cgcaacaaca acaacaacag 360
 tttctgccat cactgagcca cctagccgtg gtgaaccctg tcacctactt gcaacagcag 420
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<210> 4136
 <211> 434
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-H5

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 agctcctata gtttcccttc tttccccgta cctctcacca gcggtgtctt cggtatgtga 180
 aaaccaatt cttcaacct acaggatcca acaggcaatc acagctggca tcttaccttt 240
 atcacccttg ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcattt 300
 attggcacan aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
 ctactctcag caccagcagt ttcttcatt caaccaacta gctgcattga actctgcntt 420
 ctatttgcaa caac 434

<210> 4137
 <211> 313
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-007-Q1-K1-H6

 <400> 4137

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 atgtgttgct aacgcgacaa ttgtccctca atgctcacia gctcctatag ctttcctact 120
 tccccatac cttccatcaa ttatagcttc agtatgtgaa aaccagctc ttcaaccata 180
 taggcttcaa caagcaatcg cagcacgcaa catacctcta tcgcccttgt tgctacaaca 240
 ttcaccagcc ctatctcagg tgcagtcact ggtacaaacc atccaggcac tacagctgca 300
 gcagctagcg cta 313

<210> 4138
 <211> 433
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-H7

 <400> 4138

 gcgacgaact agcaacatag aaagctcatc attgtacca caatggcagc caaaatattt 60
 ggcttcctta tgctccttgg tctttctgca agtggtgcta ccgcaaccat tttcccacia 120
 tgctcacaag ctctatagc ttcccttctt ccccatacc tctcaccagc ggtgtcttca 180
 atgtgtgaaa cccaattgt tcaaccctac aggatccaac aggcaatcgc aacaggcatc 240
 ttaccattat cacccttggt cctccaacia ccgtcagccc tattacagca gttacctttg 300
 gtccatttgg tggcacaaaa catcagggca caacaactac aacaacttgt gctaggcaac 360
 cttgctgcat actctcagca ncatcagttt cttccattca accaactggc tgcattgaac 420
 tctgctgctt att 433

<210> 4139
 <211> 377
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-H8

<400> 4139

gcgagtgaga ccaactatca acattttaatc ttcaatagtg taccaacaat ggcagccaag 60
atatttttgct tccttatgct ccttggtcctt tctgcaagtg ttgctaccgc aaccatttttc 120
ccacaatgct cacaagctcc tatagcttcc cttcttcccc catacctctc accagcggtg 180
tcttcaatgt gtgaaaaccc aattgttcaa ccctacagga tccaacaggc aatcgcaaca 240
ggcatcttac cattatcacc cttgttcctt caacaaccgt cagccctatt acagcagtta 300
cctttggtcc atttggtggc aaaaaacatc agggcacaac aactacaaca acttggtgcta 360
gcaaaccttg ctgcata 377

<210> 4140

<211> 419

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-H9

<400> 4140

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tccttatgct ccttggtcctt tctgcaagtg ctgctaccgc aaccattttc ccacaatgct 120
cacaagctcc tatagcttcc tttcttcccc catacctctc accagcggtg tcttcagtat 180
gtgaaaaccc aattcttcaa ccctacagga tccaacaggc aatcgagca ggcatcttac 240
ctttatcacc cttgttcctc caacaaccgt cagccctatt acagcagtta cctttggtgc 300
atttggtggc aaaaaacatc aaggcacaac aactacaaca acttggtgcta ggaaaccttg 360
ctgcctactc tcagcaacag cagtttcttc cattcaacca actggctgca ttgaactct 419

<210> 4141

<211> 392

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A10

<400> 4141

cagccctatc tttggtgcag tcattggggc aaaccatcag ggcacaacag ctgcagcaac 60

tcgtgctacc tctgatcaac caagtagctc tggcaaacct ttctccctac tctcagcaac 120
aacaatttct tccattcaac caactgtcta cactgaaccc tgctgcttat ttgcagcaac 180
aactattacc atttagccag ctagctactg cctactctca gcatcaacaa cttcttccat 240
ttaaccaatt ggccgcactg aaccccgctg cttatttgca gcagcaaata ctactacat 300
ttagccagct agctgcagca aaccgtgctt ccttcttgac acagcatcag ttgctgcctt 360
tctaccagca gtttgcggct aaccccgcaa cc 392

<210> 4142

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A11

<400> 4142

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ttggtggcac aaaacgatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 120
tgcatactct cagcaacatc agtttcttcc attcaaccaa ctggctgcat tgaactctgc 180
tgcttatttg caacaacaat taccattcag ccagctagtt gctgcctacc cccagcaatt 240
tcttccattc aaccaactag cagcattgaa ctctgctgct tatttacagc agcaacaact 300
actaccattc agccagctag ctgatgtgag ccctgctgcc ttcttgacac aacaacagtt 360
gttgccgttc tacctgcacg ctatgcctaa cgctggcacc ctcttacaac tgcaacaatt 420
gctgccattc aaccaact 438

<210> 4143

<211> 367

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A12

<400> 4143

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caaaaggatg aggtccaatt ggttggaact atataggaga tttctcgaag gccccaat 120
tatgccttgg ttccggcaaa ggcgtgctgc tgcggagcaa gaacagcaga ggctctggag 180

gcaggctcgc atgaatgttg acattgaaaa gctaattgtca aatatgtccg aaatagagag 240
gattgattct tttgatgctg ttgagcgtta tcttctcaga gagatggaga accctggaaa 300
aggaagtgcg gattcaatag gggcatgcc aaaaattgaag gtagaccttc aagcagcatt 360
caatgta 367

<210> 4144
<211> 398
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-008-Q1-K1-A2
<400> 4144

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aatatgttgc ctccttatgc tccttgggtct ttctgcaagt gctgctacgg cgaccatttt 120
cccgcaatgc tcgcaagctc ctatagcttc ccttcttccc ccgtacctct caccagcggg 180
gtcttcggta tgtgaaaacc caattcttca accctacagg atccaacagg caatcacagc 240
tggcatctta cctttatcac ccttggtcct ccaacaatca tcagccctat tacatcagtt 300
acctttgggtg catttattgg cacaaaacat cagggcacaa caactacaac aacttgtgct 360
agcaaaccctt gctgcctact ctgagcaaca gcagtttc 398

<210> 4145
<211> 402
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-008-Q1-K1-A3
<400> 4145

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caagagaatg tacaagcatc ctgcaaaatc attaccctga gaggctggcc attgcatttc 120
tggtgaatcc cccaaaagta ttgcaagcct ttacagggc tgtcaaatat ttccttgacc 180
caagatcgat cgagaaactg aacttcgtgt acctgaagga tgaggagagc atgaaggctc 240
tgtacaagtg cattgatccc gtggtccttc ctgtggagtt cgggggaaag aacagtgttg 300
tgtacaacca tgaggactac tccaagttga tgctgcaaga agatatcgaa acatcaagct 360

tctgggagga tgatgcgaaa actgttaacc atgctatcaa tg

402

<210> 4146

<211> 404

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-008-Q1-K1-A4

<400> 4146

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attatccctc cttgcgcttc ttgcgctttt tgcgagcgca acaaatgcgt tcattattcc 120
acaatgctca cttgctccaa gttccattat tacacagttc ctcccaccag ttacttcaat 180
gggcttcgaa caccagctg tgcaagccta taggctacaa caagcaattg cggcgagcgt 240
cttacaacaa ccaatttccc agttgcaaca acaatccttg gcacatctaa caatacaaac 300
catcgcaacg caacagcaac aacaattcct accagcactg agccacctag ccatggtgaa 360
ccctgccgnc tacttgcaac agcagttgct tgcacaaac ccac 404

<210> 4147

<211> 209

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A5

<400> 4147

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gagatccgtc gccggtcctc atcgccctct atagtcgctc ccccttcct ctcctctccc 120
tctttgattg tctctcctt ttctctact gtcacttatt ttattgcga gggggaaaaa 180
tgattcgatg gtcaccgatc gatccgtcc 209

<210> 4148

<211> 457

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-008-Q1-K1-A6

<400> 4148

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 atactggctg accggcgcca ttccatcggg gtccgcttct cgcagggtcat gtgtgacctg 120
 cttgggtgtgg ttgctcgaca ctctctctcaa ttgggtgatat tttcttttgg agcccaagtt 180
 cttcgtctaa ggcatgactg gacatggcat tttggcgaca tcagaatagc acatgctgct 240
 agtgtttgtt gatattagag aacttttttg atttgcttgc atgttttatt ttcagtttga 300
 ggggcacgag tggtcggact tgtttcagtt tcagaaaact agggacactt ctttttagttt 360
 cagaattgag agaagtgtat tttagtttca ggattcataa tgataggac acttcactca 420
 gcatatgttc ggttgtgatt aaaacatgg ttgtgga 457

<210> 4149
 <211> 423
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-008-Q1-K1-A7
 <400> 4149

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 ccttggttgtt tcaacaatcg ccagccctat ctttgggtgca gtcattggta caaacatca 120
 gggcacagca gctgcagcaa ctctgtgtac ctgtgatcaa ccaagtagct ctggcaaacc 180
 tttctcccta ctctcagcaa caacaatttc ttccattcaa ccaactgtct aactgaacc 240
 ctgctgctta ttgacagcaa caactattac cattcagcca gctagctact gcctactctc 300
 agcaacaaca actttttcca tttaaccaat tggccgcact gaacccogct gcttatttgc 360
 agcagcaaat actactacca tttagccagc tagctgcagc aaaccgtgct ttcttcttga 420
 cac 423

<210> 4150
 <211> 416
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-008-Q1-K1-A8
 <400> 4150

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cctcattatg ctcccttggtc tttctgcaag tgctgctacg gcgagcattt tcccgcgaatg 120
ctcacaagct cctatagctt cccttcttcc cccatacctc tcaccagcga tgtcttcagt 180
atgtgaaaat ccaattcttc taccctacag gatccaacag gcaatcgag caggcatctt 240
acctttatca cccttggttc tccaacaatc atcagcccta ttacagcagt tacctttggt 300
gcattttattg gcacaaaaca tcagggcaca acaactacaa caactcgtgc tagcaaacct 360
tgctgcctac tctcagcaac agcagttacc tttggtgcat ttgttggcac aaaaca 416

<210> 4151

<211> 343

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-H2

<400> 4151

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tacatcttca ccagcgacga gcgcgccaac cgcaacgtcg atatcctcag ggacttctgt 120
ctggagcaga acatcaagta cttctatgat atcaaggacc tcagcgattt cagggctaata 180
ccagactaca aggggtgtctg ccacattgca cttgctcagg aaggccactg ccgaccaggc 240
gaagttctcc tgggtactga ttctcatcag tgcaatgctg gagcctttgg tcaatttgca 300
accggaattg gaaacactga tgcaagtttt gtgatgggca ctg 343

<210> 4152

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-F7

<400> 4152

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gagaagaagg acggcaagga ggaggaagag aagaaggacg gcggcgagaa gaatgaggag 120
aagaaggacg gcggcgacgg agacggcgac aagaaggacg aggccggcga caaggacaag 180
gaccggcccg ccagcctgta catgcactac ccgcggttcc cgttcgctgg aggggtactac 240
cagccggccg cctaccgcc gcctccgggg taccgtacg cctaccagcc ggcctaccgg 300

ccgccgttct acgcgccgtc gcaccaccac ctgcaccagc agcagcccat ggcgccgcag 360
atcttcagcg acgagaaccc caacgcctgc tccgtcatgt agttgtcact caaatgtcat 420
gt 422

<210> 4153
<211> 435
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-007-Q1-K1-F8
<400> 4153

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gcctccttat gtccttgggt atttctgcaa gtgtgtctac ggcgaccatt ttcccgcaat 120
gctcacaagc tcctatagct tcccttcttc ccccgtaact ctcaccagcg gtgtcttcgg 180
tatgtgaaaa cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct 240
tacctttatc acccttgttc ctccaacaat catcagccct attacagcag ttacctttgg 300
tgcatttatt ggcacaaaac atcagggcac aacaactaca acaacttgtg ctagcaaacc 360
ttgttgctta ctctcagcaa cagcagtttc ttccattcaa ccaactagct gcattgaact 420
ctgcttctta ttgc 435

<210> 4154
<211> 410
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-007-Q1-K1-F9
<400> 4154

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accaatggct accaagatat tagccctcct tgcgcttctt gcccttttag tgagcgcaac 120
aatgcgttc attattccac agtgctcact tgctcctagt gccattatc cacagttcct 180
cccaccagtt acttcaatgg gcttcgaaca tccagccgtg caagcctaca ggcataact 240
agcgcttgcg gcgagcgcct tacaacaacc aattgcccac ttgcaacaac aatccttggc 300
acatctaacc ctacaaacca ttgcaacgca acaacaacaa caacaacagt ttctgcatc 360

actgagccac ctagccgtgg tgaaccctgt cacctacttg caacagcagc 410

<210> 4155
<211> 414
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-G10

<400> 4155

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tggtgctcgt tgccctcgct ctccctggctc tcgctgagag cgccacctcc acgcatacaa 120
gcgggcggtg cggctgccag ccaccgccgc cgggttcatt accgccgccg gtgcatctgc 180
cacctccggt tcacctgcca cctccggtgc atctcccacc gccggtccac ctgccgccgc 240
cgggtccacct gccaccgccg gtccatgtgc cggcgccggt tcattctgccg ccgccaccat 300
gccactaccc tactcaaccg ccccgccctc agcctcatcc ccagccacac ccatgcccgt 360
gccaacagcc gcatccaagc ccgtgccagc tgcagggaac ctgcggcggt ggca 414

<210> 4156
<211> 350
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-007-Q1-K1-G11

<400> 4156

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aagccnaggc acagcgaacc atacaaacca tcgcaacaca actagagcaa caggnggcgc 120
ccgcattgag ccaactagcc gcggtgaacc ctgtctccta cttgcaacag caactgcttg 180
catccaaccc acttgctctg gcgaacacag ccgcatacca gcaacaacta cagttgcaac 240
agtttctacc agctcttagt caactagcca tgggtgaaccc tgccacatac ctgcaacagc 300
aacaactgct ttcattctagc ccactcgctg tgggcaatgc ggctacatac 350

<210> 4157
<211> 438
<212> DNA

<213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-G2

<400> 4157

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 gccggagaag caggcggccc ccgcggcaca agagacggcc gtgcacatcg tgtacgttga 120
 ccgccccgag gacgccgacc ctgaggagtt ccacatccgc accctcacc ccgtcctcgg 180
 cagcgaacag aaggccaggg acgcagtgtc ctaccactac aagaacgccg ncagcggctt 240
 ctccgcgaag ctacaccccc agcagggtcaa ggatctcaag gagcaaccag gtgttctcca 300
 ggttggtgccg agccagactt accagctaca tggctcctggg tctggcactc accagggcac 360
 gacacacacc ttgggcctat gtgaaggcgt atgagaatca ggaggactgg gtttagtatg 420
 gctgtatggc acaggtct 438

<210> 4158
 <211> 439
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-007-Q1-K1-G4

<400> 4158

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 gttgtccatt cttttcagga ccgtcgagga tcgatcaggc gggcagaagc ggtcgtcgcc 120
 ggacaagacg cataggtcca ccatggatgg cgtctaccac catcaccacc accaagagtc 180
 gccgttgacg ggcaacggcg tcgccaccgc cggtgagaag ctaggcgtgg agcggttcga 240
 gctgccgctg atctacatct cgctgtcgcg gaaggagaag gaagacgatt tccttgcgat 300
 gaagggcacc aagctgcccc agcggcccaa gaaaagggtt aagaacgtgg acaagaccct 360
 ccatattgcc ttcccggat gtgggtgtcc gatttgacga aggggacggt acgaggtgcg 420
 ggagaagaaa tgcgtgaag 439

<210> 4159
 <211> 436
 <212> DNA
 <213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-007-Q1-K1-G5

<400> 4159

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gccaagacat tatccctcct tgcgcttctt gccctttttg tgagtgaac aaatgcgttc 120
attattccac aatgctcact tgctccgagt gccattatc cacagttcct cctccagtt 180
acttcaatgg gcttcgaaca ccagctgtg caagcctata ggctacaaca agcgcttgcg 240
gcgagcgtct tagaacaacc aattgcccac ttacaacaac aatccttggc acatctaacc 300
atacaaacca tcgcaacgca gcagcaacaa gcactgagcc acctagccgt ggtgaaccct 360
atcgctact tgcaacaaca gctgcttgca tccaaccac ttgctttggc aaacgtagct 420
gcataccaac aacaac 436

<210> 4160
<211> 389
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-G6

<400> 4160

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caacagcccg tttctggcga ttttctgctg cttcttatcc agacctata gaggcattac 120
caaaaaaccg cttacatctg taaataagac agtgaatggc agttttgttc gaccatccaa 180
tgctgggggt gatgtttatc ctgtggaatc ttacgagagc tcagctaacc aagtacttga 240
tgctcactgg ggtgttctgg atgatgatga tgcaactgga ctttgctcgc ataccctctc 300
catccttgtg aatgattgtc ctggtgttct caacattgta acaagagtct ttgctcgcag 360
gggctacaat atacagagcc ttgctgttg 389

<210> 4161
<211> 437
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-G7

<400> 4161

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tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctcccaccag 180

ttacttcaat gggcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg 240

cggcgagcgt cttacaacaa ccaattgccc aattgcaaca acaatccttg ccacatctaa 300

caatacaagc catcacaacg caacagcaac aacagttcct accagcactg agccacctag 360

ccatggtgaa ccctgccgcc tacttgcaag agcagctgct tgcacccaac ccacttgctc 420

tggcgaacgt agttgca 437

<210> 4162

<211> 437

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-G8

<400> 4162

aggaagcaca atattgtacc attaaatgca gccaaaatat tttgcctcct tatgctcggt 60

gggtctttctg caagtgtctg tacggcgacc attttccgcg aatgtctgca agctcctata 120

gcttcccttc ttcccccgta cctctcacca gcggtgtctt cgggtatgtga aaaccaatt 180

cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt atcacccttg 240

ttcctccaac aatcatcagc cctattacaa cagttacctt tgggtgcattt attggcacia 300

aacatcaggg cacaacaact acaacaactt gtgctagcaa accttgetgc ctactctcag 360

caacagcagt ttcttccatt caaccaacta ggttcattga actctgcttc ttaattgcaa 420

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<210> 4163

<211> 159

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-G9

<400> 4163

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 gtggtgccct ctttttagatt tcttatgagt tatagttcaa taataaagtt ttttatctga 120
 tgtttgtggc ttcccagaaa taagaaagta catttctag 159

<210> 4164

<211> 363

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-H10

<400> 4164

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 attttcccg c aatgctcgca agctcctata gcttcccttc ttccccgta cctctcacca 120
 gcggtgtctt cgggtatgtga aaaccaatt cttcaacct acaggatcca acaggcaatc 180
 acagctggca tcttaccttt atcacccttg ttctccaac aatcatcagc cctattacat 240
 cagttacctt tggtgcattt attggcacia aacatcaggg cacaacaact acaacaactt 300
 gtgctagcaa accttgctgc ctactctcag caacagcagt ttcttccatt caaccaacta 360
 gct 363

<210> 4165

<211> 413

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-H11

<400> 4165

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 gcagatgccc tgccccctgcg cggggctgca gggcttgtag ggcgctggcg cgggcctgac 180
 gacgatgatg ggcgccggcg ggctgtacct ctacgcggag tacctgaggg agccgcagtg 240
 cagcccgtcg gcggcgggcg cctactacgc cgggtgtggg cagacgagcg ccatgtacca 300
 gccgctccgg caacagtgtc gccagcagca gatgaggatg atggacgtgc agtccgtcgc 360
 gcagcagctg cagatgatga tgcagcttga gcgtgccgct gccgtcagca gca 413

<210> 4166
 <211> 454
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-007-Q1-K1-H12

 <400> 4166

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attccttacc aacaatggca gccaaaggat tttggctact tatgctcctt ggtctttctg  120
caagtgtctg tacggcgacc attttcccg c aatgctcgca agctcctata gcttcccttc  180
ttcccccgta cctctcacca gcggtgtctt cggatatgtga aaaccaatt cttcaaccct  240
acaggatcca acaggcaatc acagctggca tcttaccttt atcacccttg ttcctccaac  300
aatcatcagc cctattacat cagttacctt tgggtgcattt attggcacia aacatcaagg  360
cacaacaact acaacaactt gtgctagcaa accttgctgc ctactctcag caacagcagt  420
ttcttccatt caaccaacta gctgcattga actc                               454
  
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<210> 4167
 <211> 385
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-007-Q1-K1-F6

 <400> 4167

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gcgggggatc aaacaagtag cgactgtttg ataaagattt gtgagagtga tccggcgctg   60
agaagagatg gctaagatcg ccgcagccgc cgcggcggcg gcggcgctgt gcttcgcggc  120
cctggtggcc gtggccgtct gccaaaggca ggtcgagcgg cagaggctca gggacctgca  180
gtgctggcag gaggtccagg agagcccgct cgacgcgtgc cgccagggtcc tcgaccggca  240
gctaaccggc ggcgggcgtc gcggcccggt ccggtggggc accgggctcc ggatgcgggtg  300
ctgccagcag ctccaggacg tgagccgcga gtgccgctgc gccgccatcc ggagcatggt  360
caggggctac gaggaggcca tgccg                               385
  
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<210> 4168
 <211> 433

<212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-026-Q1-K1-F3
 <400> 4168

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 gttttagacc aaccctgctc ctaatgaatc gaaggtttgg ccacagaggc tattcaagga 120
 acctgtgagg gtcatagaga agtaccctgc tgggtcaagaa ggtgatttga caaagaaata 180
 tatgggtgtgc atcaattggc ttttgtcaga agagccatta gatgtagaaa ctgagcttgc 240
 acttggtttc ctggatcatc tattgctggg gactccagct tcaccactta gaaggattct 300
 tcttgaaagt ggtttaggag aagctattgt gggaggtggg gttgaggatg agctccttca 360
 accacaattt agcataggcc tgaaagggtgt atcagaggat aatattgaaa aagttgaaga 420
 gttggttatg caa 433

<210> 4169
 <211> 418
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-026-Q1-K1-F4
 <400> 4169

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 attggcacca ttgttacgtt aacaggtata agtgctagtg cagctgacac gaccgttgca 120
 tgtaatgact cacaacatca tatcgctgca cctactacaa catgcgctag ataaccgagc 180
 ggtctactct gagaaaccgc agtcatttaa ggcgacaggc tccgaccaga acatgcagga 240
 agaacatctc ctacatcacc cgcgatctat caacgatggc tactcttata ttcagcacag 300
 tcagtgattc aaccaattag gtgacttcaa ctgtaacgat tattggtagc agcgaccact 360
 actaccattc tggcagatag ctgttgctaa ttcaggaac taccttgcac tcaatcaa 418

<210> 4170
 <211> 434
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F5

<400> 4170

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aggctagcta ggtggctctc gaacgaagat gttggcggtg ttcagcgggc aggtggtgga 120
ggtgccggcg gagctggtgg cggcgggcag ccggacgccg tcgccaaga cgaaggcgtc 180
gcagctggtg gggcgcttcc tggccgcctc cgagccggcc gtgtccgtgc agctcggcga 240
ccacggccac ctcgcctact cccacaccaa ccaggcgctc ctccgcccc a ggtcgttcgc 300
ggcgaaggac gaggtgttct gcctgttcga gggggtgctg gacaacctgt gtcgtctgag 360
ccagcagcac gggctgtcaa gcaagggcgc caacgaggtg ctctcgtca tcgaggccta 420
caagacgctg cgcg 434

<210> 4171

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F6

<400> 4171

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tatgtctctt ggtctttctg caagtgtctg tacggcgacc attttcccg c aatgctcgca 120
agctctata gcttcccttc tttccccgta cctctcacca gcggtgtctt cggtatgtga 180
aaaccaatt cttcaaccct acaggatcca acaggcaatc gcagctggca tcttaccttt 240
atcaccttg ttcctccaac aatcatcagc cctattacaa cagttacctt tgggtgcattt 300
attggcacaa aacatcaggg cacatcatct acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacagcagt ttcttgcat caaccaacta ggttcattga actctgctta 420
ttatttgcaa caa 433

<210> 4172

<211> 427

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F7

<400> 4172

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ggctagctag gtggggctcg tacgaagatg ttggcggtgt tcagcgggca ggtggtggag 120
gtgccggcgg agctggtggc ggtgggcagc cggacgccgt cggccaagac gaaggcgtct 180
cagctggtgg ggcgcttctt ggccgcctcc gagccggacg tgtccgtgca gtcgggcgac 240
cacggtcacc tcgcctactc ccacaccaac caggcgctcc tccgccccat gtcgttcgcg 300
gcgaatgacg acgtgttctg cctgttcgag ggggtgctgg acaacctgag tcgtctgagc 360
cagcagcagc ggctgtcaag catgggcgcc aacgaggtgc tcctcgtcac cgaggcctac 420
aagacgc 427

<210> 4173

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F8

<400> 4173

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gtccttatgc tccttggtct ttctgcaagt gttgctaccg caaccatttt ccacaaatgc 120
tcacaagctc ctatagcttc ccttcttccc ccatacctct caccagcggg gtcttcaatg 180
tgtgaaaccc caattgttca accctacagg atccaacagg caatcgcaac aggcattctta 240
ccattatcac ccttggttct ccaacaaccg tcagccctat tacagcagtt acctttggtc 300
catttggtgg cacaaaacat caggtcacaa caactacaac aacttggtgt agcaaactt 360
gctgcatact ctacagcaaca tcagtttctt tcattcaacc aactgggtgc attgaactct 420
gctgcttatt tgc 433

<210> 4174

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F9

<400> 4174

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 ggtaggttcc ttatgtcctt tgggtctttct gcaagtgttg ctaccgcaac cattttccca 120
 caatgtcac aagctcctat agcttccctt cttcccccat acctatcacc agcgggtgtct 180
 tcaatgtgtg aaaccccaat tgttcaaccc tacaggatcc aacagtcaat cgcaacaggc 240
 atcttaccat tatcaccctt gtctctccaa caaccgtcag ccttattaca gcagttacct 300
 tcgggtccatt tgggtggcaca aaacatcagg gcacaacaac tacaacaact ggtgctagca 360
 aaccttgctg aatactctca gcaacatcag tttcttccat tcaaccaac 409

<210> 4175

<211> 388

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G10

<400> 4175

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 gctccttgggt ctttctgcaa gtgctgttac ggcgaccatt ttcccacaat gctcacaagc 120
 tcctatagct tcccttcttc ccccgtagct ctcaccaacg gtgtcttcgg tatgtgaaaa 180
 cccaattctt caaccctaca ggatccaaca ggcaatcgca gctggcatct tacctttatc 240
 acccttggtc ctccaacaat catcagccct attacagcag ttacctttgg tgcatttatt 300
 ggcacaaaac atcagggcac atcaactaca acaacttggt ctagcaaacc ttgctgccta 360
 ctctcagcaa cagcagtttc ttccattc 388

<210> 4176

<211> 393

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G12

<400> 4176

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 attagccctc cttgcgcttc ttgccctttt agtgagcgca acaaatgcgt tcattattcc 120
 acagtgtca cttgtccta gtgccattat tccacagttc ctgccaccag ttacttcaat 180

gggcttcgaa catccagccg tgcaagccta caggctacaa ctagcgcttg cggcgagcgc 240
 cttacatcaa ccaattgccc aattgcaaca acaatccttg gcacatctaa ccctactaac 300
 cattgcaacg caacaactac aacaacaaca gtttctgcca tcaatgagcc acctagccgt 360
 ggtgaaccct gtcacctact tgcaacagca gct 393

<210> 4177

<211> 238

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G2

<400> 4177

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 attgctacct caaccatttt ccacaaattc tcacaatctc ctatatcttt cctttcttcc 120
 cccatacctc ttaccatctg tatcttcaat ctgttaaacc ccaatttttc aaccctatct 180
 tatccaacat tcaatttcaa caaacatctt aacattttca ccctttttatc cttcaaca 238

<210> 4178

<211> 420

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G3

<400> 4178

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 tttgcccctc ctgggccttc tggccctttc tgtgagcgca acatatgcgt tcattattcc 120
 acaatgctca ctagctccta gtgccattat tccacagttc ctgccaccag ttacttcaat 180
 ggtcttcgaa cacctagctg tgcaagccaa catgcaacaa caagcgcttg cggcgagcgt 240
 attacaacta ccaattgccc aattgcaaca tcaatccttg ccacatctaa caatacaagc 300
 catcacaacg caacagcaac aacagttcct accagcactg agccacctag ccatggtgaa 360
 ccctgccgtc tacttgcacg agcagctgct tgcattgcaac ccaattgctc tggcgaacgt 420

<210> 4179

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G4

<400> 4179

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tatgggtccct ccttatgctc cttgctcttt ctacatgtgt tgctaacgcg acaattttcc 120
ctcaatgctc acaagctcct atagcttccc ttcttcccc ataccttcca tcaattatag 180
cttcaatatg tgaaaaccca gctcttcaac catataggct tcaacaagca atcgcagcaa 240
gcaacatacc tttatcgccc ttgttggttc aacaatcgcc agccctatct ttggtgcagt 300
cattggtaca aaccatcagg gcacaacagc tgcagcaact cgtgctacct ctgatcaacc 360
aagtagctct ggcaaacctt tctccctact ctgagcaaca acaatttctt ccattcaacc 420
aactgtctac actg 434

<210> 4180

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G5

<400> 4180

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cttaatatcg gcgcacttga actgggagac tatcttgcaac ttggggcaat attctcggcc 120
acagactcgg tttgcacctt gcagaacttt gatcctggaa atatcagcag tgccaaatta 180
ctgaacttca ttggcagttt cctttatctg ttcggctcca gcaccattct tggagtagct 240
tctggacttc ttagtgctta taccattaag aagttgtact tcggcaggca ttcaaccgat 300
cgtgaagttt ccattatgat gctaattggct tatttatctt acatgctagc tgaattgctc 360
gatttgagtg gcattctcac tgtgtttttc tgcggtatcg taatgtcaca ctatacttgg 420
cacaatgtaa cagaa 435

<210> 4181

<211> 432

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-G6

<400> 4181

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tggcaatcgc gcaggctccc ctatcccttc ctgttccttc aaaaagactg gactggatct 120
tcccagagtt cccgttcgga gagccgcgg atcttcttcg acgaggcttc gatctgctgc 180
tctccgtcgg cgtgttgggg acttgcaact tatccgaaga tgtcttttcg gagcatgggt 240
cgtgatataa gggaaagttt tgggaatata tcgaggcgga actttgaggt gagaattcac 300
cacagaggga agtctcttgg gtcttcaggt gacttgcaag acaggcctgc tgaagttcag 360
caaagcaggt gggctagcct tcctcctgag ttgctctgcg atgtgatgaa aaggttgag 420
gaagatgaca gt 432

<210> 4182

<211> 436

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-026-Q1-K1-F2

<400> 4182

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tgtcatttcc gactccgagg agtccattga gaagacctcc caggcgctca agatcctcaa 180
gcagatcggc gccacgccc acgccgagaa ggccaaggac tccgtcggca tccgccccgg 240
caagggtgtaag atgcgcaacc gtcgctacat caaccgcaag ggcccgtca tcgtctacgg 300
caccgagggc tccaaggtcg tcaaggcctt ccgcaacctt cccggtgtgg atgttgccaa 360
cgtcgagcgc ctcaacctac tagaccttgc ccccggtggc caccttgggc gctntgtgat 420
ctggacccag agcgcg 436

<210> 4183

<211> 377

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D9

<400> 4183

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catcagttgc taccattcta cccacaggat gtggcaaaca atgtctcctt cttacaacaa 180
caacaattgc tgccatttaa ccaacttgct ttgacgaatc ctaccacctt attgcagcag 240
cccaccattg gtggtgccat cttctagatt cttttatgct ttatactgta ataataaagt 300
tctcatactg atatgtgcaa cttctcagta ataaaagatt agagatctat attttaagtt 360
caaaaaaat gaaaata 377

<210> 4184

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E1

<400> 4184

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cggaccgcca aggccaacgt ggcgagcggc agcagaagct tcgcccgcga gcgggacaag 180
gacctggccc cggcggcgga gaaggggagg caggacaagg ccgcccgcga ggagggcttg 240
aggaccgtca tgtacctcag ctgctgggga cccaattaac tagcctttcg tatcttagct 300
ggtctttggc cttcttcagc gaccgcgagc tcgcgagctg attattgtaa atatacgacg 360
atgatcggat gatgatgatg atgaaaagtt ctgcc 395

<210> 4185

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E10

<400> 4185

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ccacctccgg ttcaactgcc acctccggtg catctccac cgccggtcca cctgccgcg 120

ccggtccacc tgccaccgcc ggtccatgtg ccgccgccgg ttcattctgcc gccgccacca 180
 tgccactacc ctactcaacc gcccgggctt cagcctcatc ccagaccaca cccatgcccg 240
 tgccaacagc cgcattcaag cccgtgccag ctgcagggaa cctgcggcgt tggcagcacc 300
 ccgattctgg gccagtgcgt cgagttttctg aggcattcagt gcagcccgac tgcgacgccc 360
 tactgctcgc ctcagtgcc gtcgttgccg cagc 394

<210> 4186

<211> 416

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E11

<400> 4186

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 cgagcgcctt acaacaacca attgcccaat tgcaacaaca atccttggca catctaacc 120
 taaaaccat tgcaacgcaa caacaacaac aacaacagtt tctgccatca ctgagccacc 180
 tagccgtggg gaaccctgtc acctacttgc aacagcagct gcttgcattc aaccacttg 240
 ctctggcgaa cgtagctgca taccagcaac aacaacagct gcaacagttt atgccagtgc 300
 tcagtcaact agccatgggtg aaccctgccg tctacctaca actactttca tctagcccgc 360
 tcgcgggtggg caatgcacct acgtacctta cacaacagtt gctgcaacaa attgta 416

<210> 4187

<211> 395

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E12

<400> 4187

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 gttgccctcg ctctcctggc tctcgttgcg agcgccacct ccacgcatac aagcggcgcc 120
 tgcggctgcc agccaccgcc gccggttcat ctaccgccgc cgggtgcattt gccacctccg 180
 gttcacctgc cactccgggt gcattctcca ccgccggtcc acctgccgcc gccgggtccac 240
 ctgccaccgc cgggtccatgt gccgccgccg gttcattctg cggccgccacc atgccactac 300

cctactcaac cgccccggcc tcagcctcat ccccagccac acccatgccc gtgccaacag 360
ccgcatccaa gcccggtgcca gctgcaggga acctg 395

<210> 4188

<211> 340

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E2

<400> 4188

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ggcctcgcct gggccacgga cgaccactcc ctccacaacg ccttcagcac ctacggcgag 180
gtcctcgagt ccaagatcat cctcgatcgg gagacgcaga ggtcccgcg cttcggcttc 240
gtcaccttct ccacggagga ggcgatgcgg aacgccatcg agggcatgaa cggcaaggag 300
ctggacggcc gcaacatcac cgtcaacgag gccagtcctc 340

<210> 4189

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E3

<400> 4189

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ccctgccaaag gaggtgcta gcttcacctc ccaggtcatc atcatgaacc accctggcca 120
gattggcaat ggctatgccc cagttctgga ctgccacacc tcacacattg ctgtcaagtt 180
tgctgagctc gttaccaaga ttgataggcg atccggcaag gagctggaga aggagcccaa 240
atttctcaag aacggtgatg ctggatgggt gaagatggtt cccactaagc ccatgggtgt 300
ggagaccttt tctcagtatc ctctcttgg tcgatttgct gtccgtgaca tgaggcaaac 360
ggtggctgtc ggagtcacat agagtgtgga gaagaaggac ccaactggag ccaatgtgac 420
taaagctgct gccaaaga 438

<210> 4190
 <211> 432
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E5

<400> 4190

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gtcccccttct ccgaggagga gcttgagtag attgcaagac ttgatcctgt aaaagatgga 60
gaaatgctac gcatggagct acccatgata cgagacgcat gtctcagggg gctggtgcta 120
tcaacagtat ttctcaagga agctgcagcg tctggcctct gcctctcgga gattggagac 180
atgatgagca ggcagttcac tgcgaaggag gaggaaccga gtcagcttga gctgctctgc 240
atggaggcaa ggaagtgggt tgaggaaaga gagtcctttc ttcccaacga agccggagtt 300
gaagatgacg atgatgactt caccagttc cttatcgacg acgaggatga ttatccggat 360
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ctgtccaagc ta 432
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<210> 4191
 <211> 432
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E6

<400> 4191

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gaaatgctac gcatggagct acccatgata cgagacgcat gtctcagggg gctggtgcta 120
tcaacagtat ttctcaagga agctgcagcg tctggcctct gcctctcgga gattggagac 180
atgatgagca ggcagttcac tgcgaaggag gaggaaccga gtcagcttga gctgctctgc 240
atggaggcaa ggaagtgggt tgaggaaaga gagtcctttc ttcccaacga agccggagtt 300
gaagatgacg atgatgactt caccagttc cttatcgacg acgaggatga ttatccggat 360
gccttggaac catcagcttt ctgcaagttt ggtagcatga aggcaagttc taggaatcca 420
ctgtccaagc ta 432
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<210> 4192
 <211> 416

<212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-026-Q1-K1-E7
 <400> 4192

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 ttgacacaac aacagttggt gccgttctac ctgcacgctg cgcctaacgc tggcaccctc 240
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 taccaacaac ccatcattgg tgggtgccctc ttttagattg cttatgagtt atacttcaat 360
 aatgaagttt tttggatgat gtttgtggct tcccagaaat aagaaagtac atttct 416

<210> 4193
 <211> 432
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 <213> Zea mays
 <223> unsure at all n locations
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 tcacgtctca atgcacagca caggagatca tgacaaaaat agaggatgca tgtggggccac 180
 tcggtttcaa cgtgcggaaa caaaattaca agatgaaatt gaaaggtgac aaatctggaa 240
 gaaaaggtca cttatctggt gcaactgagg ttttgaggt tgcccatca cttcacatgg 300
 ttgagcttcg taaaaccgga ggagacacat tggagtcca cagcttctac aagaacttct 360
 catcggagct gaaagatatc gtgtggaaag ctgaatctga cgcanataat aaacagacga 420
 ataagtgata cc 432

<210> 4194
 <211> 396
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-E9

<400> 4194

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tgctcacttg ctcctagtgc cattattcca cagttcctcc caccagttac ttcaatgggc 180
ttcgaacatc cagccgtgca agcctacagg ctacaactag cgcttgcggc gagcgcctta 240
caacaaccaa ttgcccaatt gcaacaacaa tccttggcac atctaaccct acaaaccatt 300
gcaacgcac aacaacaaca acaacagttt ctgccatcac tgagccacct agccgtggtg 360
aaccctgtca cctacttgca acagcagctg cttgca 396

<210> 4195

<211> 269

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F1

<400> 4195

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accattcaac acctacccat ttcaccacta accttcttaa cacaacaaca actttctcac 120
tctatcttaa cctcctcct aactctgtct ccctattaca tctacatcaa ctacttccac 180
acaaccaact cgctttttaca aaccaaacaa ctttctacca acaaccatc attcttctctg 240
ccctacttta tactgtcaa catttatac 269

<210> 4196

<211> 414

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F10

<400> 4196

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ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata 180

ctctcagcaa catcagtttc ttccattcaa ccaactggct gcattgaact ctgctgctta 240
 tttgcaacaa caattaccat tcagccagct agttgctgcc taccgccagc aatttcttcc 300
 attcaaccaa ctagcagcat tgaactctgc tgcttattta cagcagcaac aactactacc 360
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<210> 4197

<211> 387

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F11

<400> 4197

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 atgctcaciaa gctcctatag cttcccttct tccccatcac cttccatcaa ttatagcttc 180
 aatatgtgaa aaccagctc ttcaaccata taggcttcaa caagcaatcg cagcatgcaa 240
 cataccttta tcgcccttgt tgtttcaaca atcgccagcc ctatctttgg tgcagtcatt 300
 ggtacaaacc atcagggcac atcagctgca gcaactcgtg ctacctctga tcaaccaagt 360
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<210> 4198

<211> 384

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-F12

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 gcaggttctt caaaaagccg tgggagatca cgggccctg cgcctcgccc gagtaccgca 180
 gcgcgtgcc tggcgcgctc gagtaccgcg tcaagtgcc ggccaccgtg cgcgacgacc 240
 gcgacaaggc catcgtgccc acatccgac cggagacagt ctacgacatc aagtacttca 300
 cccgcgatcg ccgtcggaac cgttcgtccg tgcgccgcac cctgctccgc aagcccagacc 360

tcgagcgcta catggtcacc aagc

384

<210> 4199

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D8

<400> 4199

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cattctcgtt gctggcaacc acccaagtca cgggtgtccat gggcatgccc gtgcaggctg 180

aatgcagtca gttcgcgaa ccatcgggcg tcctggaccc atatactatc atgtgtcgtc 240

ttgagaatcg gctcaagaca aaccatcggg caggactgga gtagttgtcc aaggactgag 300

gatgtttatg cagacacaag tatgtttggt ggctcgatgt atgtgaattc caaaactcca 360

tctgggtatg taaatatttg tatgggttta gtttggttgc ttttctgttt ggcatctca 420

tgaaacctct gct 433

<210> 4200

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C3

<400> 4200

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aaccgactag ctgcattgaa ctctgcttct tatttgcaac aacaacaact accattcagc 120

cagctatctg ctgcctaccc ccagcaattt ctccattca accaactgac agcattgaac 180

tctcctgctt atttacagca gcaacaacta ctaccattca gccagctagc tgggtgtgagc 240

cctgctacct tcttgacaca accacagttg ttgccgttct accagcacgc tgggcctaac 300

gctggcacc tcttacaact gcaacaattg ctgccattca accaacttgc tttgacaaac 360

ccagcagcat tctaccaaca acccatcatt ggtgggtgcc tcttttagat ttcttatgag 420

ttatagttca ataata 435

<210> 4201
 <211> 427
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C4

<400> 4201

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aggcgggagg ccgctgctag gcggaagtgg cgggtggcggg aagcgggtgc ggaggccgtc 180
gatggcggtc gtggcggcgc tgctgctggc gtgcgcggcg ctgctcctgc tcctggccct 240
cggcgcgcta tcgctgcccg gggcctccga cggctccggg ggacgcgggtg cggggctctc 300
gctctcgcgc ccccgctcgc gcttccgcag atccgccttc gactcggggc tagagacgcg 360
tgggggagaag ggggagccgt ggacggaggt gctgtcgtgg gagccccgcg cgttcgtgta 420
ccacaac 427
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<210> 4202
 <211> 395
 <212> DNA
 <213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C5

<400> 4202

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tcattattcc acaatgctca cttgctccta gtgccattat tccacagttc ctccctccag 180
ttacttcaat gggcttcgaa caccagctg tgcaagccta caggctacaa caagcgcttg 240
ctgcgagcgt cttacaacaa ccaattgccc aattacaaca acaatccttg gcacatctaa 300
ccatacaaac catcgcaacg catcagcaac aacaatttct accagcactg agccaactag 360
ctgtggtgaa ccctgtcgcc tacttgcaac agcag 395
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<210> 4203
 <211> 456
 <212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C6

<400> 4203

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ttgtgagcgc aacaaatgcg ttcattattc cacaatgctc acttgctcct agtgccatta 180
ttccacagtt cctccctcca gttacttcaa tgggcttcga acaccagct gtgcaagcct 240
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aacaatcctt ggcacatcta accatacaaa ccatcgcaac gcaacagcaa caacaatttc 360
taccagcact gagccaacta gctgtggtga accctgtcgc ctacttgcaa cagcagttgc 420
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<210> 4204

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C8

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tgggtctcttc tgtccaatga gaaagggtga ctcaatcaga gtagcactaa ccttgccaat 180
cgcgtacgtg agattgctgg ttcattattc gacgaatagc atgactatgc tgagtgggca 240
catggtagct ttcttttggg agagtacatt aaagcactag accgtgctaa aggcggaactg 300
tactataatc attcactggg tatgcagtac agcaagatat cagatcatat atttggtggg 360
tcatgtatac aaacagagaa agatgtgaag atgttatcag aaactatggg tattactgct 420
gatctgaa 428

<210> 4205

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C9

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaattata 180
gcttcaatat gtgaaaaccc agctcttcaa ccatataggc ttcaacaagc aatcgagca 240
agcaacatac ctttatcgcc cttgttggtt caacaatcgc cagccctatc tttggtgcag 300
tcattggtac aaaccatcag ggcacaacag ctgcagcaac tcgtgctacc tctgatcaac 360
caagtagctc tggcaaacct ttctccctac tctcagcaac aacaatttct tccattc 417

<210> 4206

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D1

<400> 4206

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cctcaatgct cacaagctcc tatagcttcc cttcttcccc cataccttcc atcaatgata 180
gcttcagtat gtgaaaaccc agctcttcaa ccctataggc tccaacaagc aatcgagca 240
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ttggtacaaa ccatcaaggc acagcagctg cagcaactcg tgctacctgt gatcaaccaa 360
gtagctctgg caaacctttc tcctactat cagcaacaac aatttcttcc attcaaccaa 420
ctatctacac tgaaccct 438

<210> 4207

<211> 426

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D10

<400> 4207

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ccaacaatca tcagccctat tacaacagtt acctttggtg catttattgg cacaaaacat 180
cagggcacia caactacaac aacttgtgct agcaaacctt gctgcctact ctgagcaaca 240
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acaactacca ttgagccagc tacctgctgc ctacccccag caatttcttc cattcaacca 360
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gctagc 426

<210> 4208
<211> 395
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-026-Q1-K1-D11
<400> 4208

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ccatcatggc tcaacagctg cagtaactct tgctacctgt gatcaaccat gtaactctgg 240
caaacctttc tcttactct aagcaacatc attgacttcc attcaacctc ctgactacac 300
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actatcagca tcaacatctt cttccattta accaa 395

<210> 4209
<211> 375
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-026-Q1-K1-D12
<400> 4209

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cagcattgaa ctctgctgct tatttacaac agcaacagct accaccattc agccagctag 180
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 ctttgacaaa cccaacagcg ttctaccaac aaccatcat tgggtggtgcc ctctttttaga 360
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<210> 4210

<211> 386

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D2

<400> 4210

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<210> 4211

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D4

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catcagggca caacaactac aacaacttgt gctagcaaac cttgctgcct actctcagca 360
acagcagttt cttccattca accaactagc tgcattgaac tctgcttctt atttgcaaca 420
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<210> 4212

<211> 434

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D5

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<210> 4213

<211> 433

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-D6

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acaacaagca attgcggcga gcgtcttaca acaaccaatt tcccagttgc aacaacaatc 180
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<210> 4214

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-C2

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tcttattgtt ttcagattga cacggagcaa ctgctggccc atctagtaga aacagaaatg 180
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gaagttcagt tcagtatgtc atttctttgg atatcaggct tgaggatcta caccatcaaa 360
tttcgactgt gactatgctt atgctcttgg acgtatctcc ctgcatatga ttgcagttgg 420
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<210> 4215

<211> 348

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-E2

<400> 4215

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cattattcca caatgctcac ttgctccaag ttccattatt acacagttcc tcccaccagt 180
tacttcaatg ggcttcgaac acccagctgt gcaagcctat aggctacaac aagcaattgc 240
ggcgagcgtc ttacaacaac caatttccca gttgcaacaa caatccttgg cacatctaac 300
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<210> 4216

<211> 352
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-007-Q1-K1-E3

 <400> 4216

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 tcttctacct cgtgctgcag tggccggggg cctactgcga caccaagcag agctgctgct 240
 accccaagtc cggcaagccg gcggcggact tcgggatcca cggcctctgg cccaaccgcg 300
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<210> 4217
 <211> 397
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-E4

 <400> 4217

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 ttcagccagc tagctactgc ctactctcag caacaacaac ttcttccatt taaccaattg 180
 gccgcactga accccgctgc ttatttgcag cagcaaatac tactaccatt tagccagcta 240
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<210> 4218
 <211> 449
 <212> DNA
 <213> Zea mays

 <223> Clone ID: LIB3061-007-Q1-K1-E5

 <400> 4218

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aaaccaatt cttcaaccct ataggatcca acaggcaatc gcagctggca tcttaccttt 240
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attggcacia aacatcatgg cacaacaact acaacaactt gtgctagcaa accttgctgc 360
ctactctcag caacaacagt ttcttccatt caaccaacta gctgcattga actctgcttc 420
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<210> 4219
<211> 434
<212> DNA
<213> Zea mays
<223> unsure at all n locations
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agatctagta gagaggctag taggtgttcc tcgaacgaag atgttggcgg tgttcagcgg 120
gcaggtgggtg gaggtgccgg cggagctggt ggcggcgggc agccggacgc cgtcgcccaa 180
gacgaaggcg tcgcagctcg tggggcgctt cctggccgcg tccgagccgg ccgtgtccgt 240
gcagctcggc gaccacggcc acctcgcta ctccacacc aaccaggcgc tcctccgncc 300
caggtcgctt gcggccaaag acgaggtgtt ctgcctgttc aaaggggtgc tggacaacct 360
gnggtcgctg acccagcagc aacgggctgt caagcagggc cgccaacgag gtgctcctcg 420
tcacgagggc ctac 434

<210> 4220
<211> 439
<212> DNA
<213> Zea mays
<223> Clone ID: LIB3061-007-Q1-K1-E7
<400> 4220

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 cgttatgctc cttgggtcttt ctgcaagtgc tgctacggcg accattttcc cacaatgctc 120
 acaagctcct atagcttccc ttcttcccc gtacctctca ccagcgggtgt cttcggtatg 180
 tgaaaaccca attcttcaac cctataggat ccaacaggca atcgagctg gcatcttacc 240
 tttatcacc ttgttctctc aacaatcatc agccctatta cagcagttac ctttgggtgca 300
 tttattggca caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc 360
 tgctactct cagcaacaac agtttcttcc attcaaccaa ctagctgcat tgaactctgc 420
 ttcttatttg caacaacaa 439

<210> 4221
 <211> 439
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-007-Q1-K1-E8
 <400> 4221

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 gttggactat ctgcaagtgt tgctaccgca accattgtcc cacaatgctc acaagctcct 120
 atagctaccc ttcttaccctc atacctctca ccagcgggtgt cttcaatgtg tgaaaaccca 180
 attgctcaac cctacaggat ccaacaggca atcgcaacag gcatcttacc attatcacc 240
 ttgatccttc aacaaccgta agccctatta cagcagttac ctttgggtcca tttgggtggca 300
 caaaacatca gggcacaaca actacaacaa cttgtgctag caaaccttgc tgcatactct 360
 cagcaacatc agttacttcc attcaaccaa ctggctgcat tgaactctgc tgcttatttg 420
 caacaacaat taccattca 439

<210> 4222
 <211> 359
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-007-Q1-K1-F1
 <400> 4222

cggacgcgtg ggatccgac cactctcatc tctccaaggc agagaagaag aagaggagga 60

agaagaagca tcggcagcat gtcggagggg actgccaact gcgtggacat cctgatcgcc 120
atcatcctgc ctccgctggg ggtgttcctc aagtacgggt gcggccacga gttctggatc 180
tgcctcctcc tcaccttcct cggtacatc cccggcatca tctacgcat ctacgcatc 240
accaagaaca cctagctagt catccttgcc gacgacgac catgtctctg tatctgtgtc 300
tgttcatatg cctgatgccg acttgtgctg tatgtagtgt cttgaattca gtcgtgttc 359

<210> 4223

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-F10

<400> 4223

cggtcgcacc cactcgtccg ttgacgcttc gggctcttaca agcaactttg aaagttgaat 60
ccaggagcaa caacagagga acagtggcga ccaagatatg cncctcctt atgctccttg 120
ctctttctgc atgtgttgct aacgcgacaa tttccctca atgctcacia gtcctatag 180
cttcccttct tccccatac cttccatcaa tgatagcttc agtatgtgaa aaccagctc 240
ttcagcccta taggtccaa caagcaatcg cagcaagcaa cataccttta tcacccttgt 300
tgtttcaaca atcgccagcc ctatctttgg tgcagtcatt ggtacaaacc atcatggcac 360
agcagctgca gcaactcgtg ctacctgtga tcaaccaagt agctctggca aacctttctt 420
cctactctca gcaacaacaa 440

<210> 4224

<211> 428

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-F11

<400> 4224

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cccttcgctg gtgacgagcg ccactaggt tggctgtgtg ctgatgctat ttgtgtttaa 120
gtacttccac ctggtgttaa tcttttggga gtggaatctc tgagacctct gaggtgtgcc 180
tttctggcat caagtttaac tgcaacgac agagggtttc tggtgccctg tcattctgaa 240

tggcagacct tacggacatc ggttgctgca gttgctttag ctttttaagg aagcccagtg 300
 tacctgtacg tcaacatcag gatgctgatg gcatgttatc tgaagattta ctgaagcgtc 360
 aatcagctga agatcctgat ggaagtttct acactgggga tgatcctgat gtaagctttt 420
 ataacggg 428

<210> 4225

<211> 425

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-F12

<400> 4225

atggagacca gctatcaaca tagaattctc aaattgtacc aacaatggca gccaaaatat 60
 tttgctctct tatgtctcctt ggtctttctg caagtgtctg tacggcgacc attttcccg 120
 aatactcgca agctcctata gcttcccttc ttcccccgta cctctcacca gcggtgtctt 180
 cgggtatgtga aaaccaat cttcaaccct acaggatcca acaggcaatc acagctggca 240
 tcttaccttt atcacccttg ttctccaac aatcatcagc cctattacat cagttacctt 300
 tgggtgcattt attggcacia aacatcaggg cacaacaact acaacaactt gtgctagcaa 360
 accttgctgc ctactctcag caacagcagt ttcttccatt caaccaacta gctgcattga 420
 actct 425

<210> 4226

<211> 394

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-F2

<400> 4226

atggagacca actagcaaca tagaatcttc attagtgtac caacaatggc agccaaaata 60
 ttttgctctc ttatgtctct tgggtctttct gcaagtgtct ctacggcgac cattttcccg 120
 caatgctcgc aagctcctat agcttccctt cttccccgt acctctcacc agcgggtgtct 180
 tcggtatgtg aaaacccaat tcttcaacc tacaggatcc aacaggcaat cacagctggc 240
 atcttacctt tatcaccctt gttcctccaa caatcatcag cctattaca tcagttacct 300

ttggtgcatt tattggcaca aaacatcagg gcacaacaac tacaacaact tgtgctagca 360
aaccttgctg cctactctta gcaacagcag tttc 394

<210> 4227

<211> 399

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-F4

<400> 4227

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ctctgactca gctagtgggtg gcaaaccctg ctgcctactt gcaacagctg cttgcattca 120
accaactgac tatgtcgaac tctgctgcgt acctacaaca gcgacaacag ttacttaatc 180
cactagcagt ggctaaccce ttggtcgcgt ccttcctaca gcagcaacaa ttgctgccat 240
acaaccagtt ctctttgata aaccctgtct tgtcgaggca gcaaccatc gttggagggtg 300
ccatctttta gattacatat gagatgtact cgataatggt gccctcattc cggcatgtgt 360
ttcctagaaa taatcaatat attgattgag atttatctc 399

<210> 4228

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-F5

<400> 4228

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ggaaaacaaa gtagttaatg tgtctgaaca aagctcaaca gtgagccgga tcagcccggc 120
agctaaatta ctgatcaagg aacatggact ggatacatca tcaactgagag catcaggccc 180
ccgtggcacc cttctgaaag gggatgttct ggcagcattg aagtcaggta tcaattcaag 240
ttcaacaaaa gaaaagaagt ctccagctca accttcgtct cagccaactc gagattccca 300
atctcaagca tcctctatatt cacanaagga tgatacatat gaagatattc cgaatagtca 360
gatacgcaag gtcattgccca aaagggttgct cgaatcaaaa cagacgactc cacatttgta 420

tctatccaaa gatg

434

<210> 4229

<211> 351

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-E12

<400> 4229

tggcgggttaa gtagataatc tgggggtactg atgtctaccg aggaaagagt gaggaaaaga 60
aaggaatcca atagagaatc agccagacgc tcgagataca ggaaagccgc tcacctgaaa 120
gaactggaag accaggtagc acagctaaaa gccgagaatt cttgcctgct gaggcgcatt 180
gccgctctga accagaagta caacgacgct aacgtcgaca acaggggtgct gagagcggac 240
atggagaccc taagagctaa ggtgaagatg ggagaggact ctctgaagcg ggtgatagag 300
atgagctcat cagtgccgct gtccatgcc atctcggcgc cgacccccag c 351

<210> 4230

<211> 434

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-C7

<400> 4230

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tgttccacaa gaccactggg atcaagaaga ccaccactgc tgcaccggcg taccaggtgg 120
ccatggccgg cgctgagatg gatcagaatc agaacaacat ccccttcccc atgccgatgc 180
aattttccat gctgcccgcac ttctccttgg acccgtgccc cccctactac ccgtacccca 240
acgctggcgc ggggatgccg atgcttcccta tggcagcagg tataggtggt ggcgcgggtg 300
ggctccacct caacggcgcc gccctgttcg gcaatccgat ggccgcgccc cagcccatga 360
gcttctacca ccagatgggc acgngactg cttgcgctgg cggcttcgat gtttctgcgc 420
cggagagtag gccg 434

<210> 4231

<211> 436

<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C8

<400> 4231

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tgaggcatca gtgcagcccg acggcgacgc cctactgtc gcctcagtgc cagtcgttgc 120
ggcagcagtg ttgccagcag ctacggcagg tggagccgca gcaccgttac caggcgatct 180
tcggcttggc cctccagtcc atcctgcagc agcagccgca aagcggccag gtcgcggggc 240
tgttggcggc gcagatagcg cagcaactga cggcgatgtg cggcctgcag cagccgactc 300
catgccccta cgctgctgcc ggcggtgtcc cccactgaag aaactatgtg ctgtagtata 360
gccgctggct agctagctag ttgagtcatt tagcggcgat gattgagtaa taatgtgtca 420
acgcatacc atgggt 436

<210> 4232
<211> 415
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C9

<400> 4232

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agggacggca tgggtgtcga ggcgtccatg gcgagcattc tgccggggcc caacgtcgac 120
gtccccaccg tcatcgatct gtctgcgcgg aaggccctca acagcttcga gatggtcagc 180
ctcatgggcg cgcacacggc ggggggtgac cactgctcgg tgatccacga ccggctgttc 240
aacttcaacg gcaccgggtc gccggaccgc gccatggacc cgatgtacgt gtggatcctg 300
acgacgtacg cgtgccccaa gggccaggcc ttcgacaaca tcgtctacct cgacgacccc 360
tccagcatcc tgctcgtcga ccggagctac tactcccaga tcatgaagcg ccacg 415

<210> 4233
<211> 409
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D1

<400> 4233

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atggcgacca agatactttc cctccttatg ctcccttgctc tttctgcatg tgttgctaac 120
gcgacaattt tccctcaatg ctccacaagct cctatagctt cccttcttcc cccatacctt 180
ccatcaatga tagcttcagt atgtgaaaac ccagctcttc aaccctatag gctccaacaa 240
gcaatcgag caagcaacat acctttatca cccttgtttc aacaatcgcc agccctatct 300
ttggtgcagt cattggtaca aaccatcaag gcacagcagc tgcagcaact cgtgctacct 360
gtgatcaacc aagtagctct ggcaaaccctt tctccctact atcagcaac 409

<210> 4234

<211> 292

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D10

<400> 4234

ccgacgcgtc cgccctcgcg tccgattact gagtctaaca agcaacatag aaagtggaaat 60
ccagtagcaa caacagagca acaatggcga ccaagatatt ttccctcctt atgctccttg 120
ctctttctgc atgtgttgct aacgcgacaa ttttccctca atgctcaciaa gctcctatag 180
cttcccttct tccccatac cttccatcaa tgatagcttc agtatgtgaa aaccagctc 240
ttcagcccta taggctccaa caagcaatcg cagcaagcaa cataccttta tc 292

<210> 4235

<211> 391

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D11

<400> 4235

gacccactcg tccgttggaat catcgatcct tggcacatct tcaactctatt taccattgca 60
acgcaacaac aacgacaaca gcagtttctg ccatcactga gccacctagc cgtgggtgaac 120
cctgtcacct acttgcaaca gcagctgctt gcatccaacc cacttgetct ggcgaaacgta 180
gctgcatacc agcaacaaca acagctgcaa cagtttatgc cagtgtcag tcaactagcc 240

atggtgaacc ctgccgtcta cctacaacta ctttcatcta gcccgctcgc ggtgggcaat 300
gcacctacgt acctacaaca acagttgctg caacaaattg taccagctct gactcagcta 360
gctgtggcaa accctgctgc ctacttaca c 391

<210> 4236
<211> 428
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D12

<400> 4236

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ggtctttctg caagtgtgc tacggcgacc attttccgc aatgctcgca agctcctata 120
gcttcccttc tcccccgta cctctacca gcggtgtctt cggtatgtga aaaccaatt 180
cttcaaccct acaggatcca acaggcaatc acagctggca tcttaccttt atcaccttg 240
ttctccaac aatcatcagc cctattacat cagttacctt tgggtgcattt attggcaca 300
aacatcaggg cacatcaact acaacaactt gtgctagcaa accttgctgc ctactctcag 360
caacagcagt ttcttccatt caaccaacta gctgcattga actctgcttc ttatttgcaa 420
caacaaca 428

<210> 4237
<211> 352
<212> DNA
<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D2

<400> 4237

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aagatattag cctccttgcc gcttcttgcc cttttagtga gcgcaacaaa tgcgttcatt 120
attccacagt gtcacttgcc tcctagtgcc attattccac agttcctccc accagttact 180
tcaatgggct tcgaacatcc agccgtgcaa gcctacaggc tacaactagc gcttgccggc 240
agcgccttac aacaaccaat tgcccaattg caacaacaat ccttggcaca tctaacccta 300
caaaccattg caacgcaaca acaacaaca caacagtttc tggcatcact ga 352

<210> 4238

<211> 346

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D3

<400> 4238

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atattatccc tccttgcgct tcttgcgctt tttgcgagcg caacaaatgc gttcattatt 120
ccacaatgct cacttgctcc aagttccatt attacacagt tctcccacc agttacttca 180
atgggcttcg aacacccagc tgtgcaagcc tataggctac aacaagcaat tgcggcgagc 240
gtcttacaac aaccaatttc ccagttgcaa caacaatcct tggcacatct aacaatacaa 300
accatcgcaa cgcaacagca acaacaattc ctaccagcac ttgacc 346

<210> 4239

<211> 223

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D4

<400> 4239

ctatagatga agcacagaaa catgcatccc atgccataat ggccaaagat gtctcaacga 60
atgacgcact gggagaccaa ctcacgtctg agcaaacca acagctgacc ctggaactga 120
aatcatccga cgaccagaac caaatcacca ggtgcaagca cgcatcttga cgactatag 180
agaacatgcc agcacaacgc aaccaccacc accagcacta cca 223

<210> 4240

<211> 332

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D5

<400> 4240

gcaacaatgg ttacgaaggt attttcccta cttatgctcc ttgctccctc tacatgtgtt 60
gctaacgcga caattttccc tcaatgctca caagctccta tagcttcctt tcttccccca 120

taccttccat caattatagc ttcagtatgt gaaaaccag ctcttcaacc atataggctt 180
 caacaagcaa tcgcagcaag caacatacct ttatcgccct tgttgtttca acaatcacca 240
 gccctatctt tgggtgcagtc attgggtacaa accatcaggg cacaacagct gccacaactc 300
 gtgctacctg tgatcaacca agtagctctg gc 332

<210> 4241

<211> 438

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-D7

<400> 4241

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 gttcatcatt tctgcttttt acggacatgt ggtggagttt tctcatgcat ccctatgggt 120
 gccgcgttat tcatagggta ttggagcatt gtgatgatga aagcacacat aatgccatga 180
 tggaagagat catgcagtc gcggctactt taacagagga ccagtatggg aattatgtaa 240
 tccagcatgt cctgcagcat gggaaaccag aagagcggtt tacattaatt acacaactcg 300
 ctggacagat agtgaaaatg agccatcaga aatttgcttc taatgcaatg atgaatgacc 360
 agttcgcaca ctatgtgggt cacaagggtt tggagatatg tgatgaccag aaccgtgaat 420
 tgattctttc ccgtatca 438

<210> 4242

<211> 435

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-D8

<400> 4242

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 ttgccatcac gaatctcaca aactacctca caaaagagaa cagagctgaa gacctcagga 120
 accttttgac ccagctcagg cccttttttg cattgatccc caaggcgaag actgcgaaga 180
 ttgtgcgtgg catcattgat gccgttgcca aggtgcctgg aacatctcag cttcagatct 240

cactgtgcaa ggagatggta gaatggaccc gtgcagagaa gcgaaccttc ctcaggcagc 300
 gtgtggaagc aaggctggca gcccttctgt tggagaatca ggagtatact gaggctctta 360
 cactcctttc tggactcatc aaggaagtta ggaggctgga tgacaagttg cttcttgtgg 420
 acatcgacct tttgg 435

<210> 4243
 <211> 440
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-D9

 <400> 4243

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 atggcagcta aaatatgggg cctccttatg ctccttggtc tttctgcaag tgctgctacg 120
 gcgaccattt tcccacaatg ctcacaagct cctatagctt cccttcttcc cccgtacctc 180
 tcaccaacgg tgtcttcggt atgtgaaaac ccaattcttc aaccctacag gatccaacag 240
 gcaatcgag ctggcatctt acctttatca cccttggtcc ttcaacaatc atcagcccta 300
 ttacagcagt tacctttggt gcatttattg gcacaaaaca tcagggcaca acaactacaa 360
 caacttggtc tagcaaacct tgctgcctac tctcagcaac cgcagtttct tccattcaac 420
 caactagctg cattgaactc 440

<210> 4244
 <211> 418
 <212> DNA
 <213> Zea mays

 <223> unsure at all n locations
 <223> Clone ID: LIB3061-007-Q1-K1-E1

 <400> 4244

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 gttecgctcaa tgctcacaag ctcttatagc ttcccttctt ccccataacc ttccatcaat 120
 tatagcttca atatgtgaaa acccagctct tcaaccatat aggcttcaac aagcaatcgc 180
 agcaagcaac atacctttat cgccttggtt gtttcaacaa tcgccagccc tatctttggt 240

gcagtcattg gtacaaacca tcagggcaca acagctgcag caactcgtgc tacctctgat 300
 caaccaagta gcttttggca aacctttctc cctactctca gcaacaacaa tttcttccat 360
 tcaaccaact gtctacactg aaccctgctg cttatttgca gcaacaacta ttaccatt 418

<210> 4245

<211> 389

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-E11

<400> 4245

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 aacaatggct tccaagacat tatccctcct tgcgcttctt gccctttttg tgagtgaac 120
 aaatgcgttc attattccac aatgctcact tgctccgagt gccattatc cacagttcct 180
 cctccagtt acttcaatgg gcttcgaaca cccagctgtg caagcctata ggctacaaca 240
 agcgcttgcg gcgagcgtct tagaacaacc aattgcccaa ttacaacaac aatccttggc 300
 acatctaacc atacaaacca tcgcaacgca gcagcaacaa gcactgagcc acctagccgt 360
 ggtgaaccct atcgntact tgcaacaac 389

<210> 4246

<211> 418

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-C6

<400> 4246

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 cccagagccc cgcacacctc ttttcggttt tttctcgccg gcggttggtc caggatcggg 120
 ctttgggctc cgtgcatcga cgcgcgcgcg cctcctgatc gcaaaggggtg tttccccag 180
 gctttcgtgc tccggaagtg gcgagattcg ccgagaaaagg tcagatccgg tggcctggtt 240
 cgagcaacag tgtgttggcg tatcgatctg cattggatcg tcgggcgatt cgtgtgacgg 300
 agacgacgtn ctctgtgtgg gctccggtt gctcctcagc tctagatctg gagggactgg 360

gtgatctgct gcctcaagca gcttgagggtg cattggaaag tgaccatctt tcccagac 418

<210> 4247

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B11

<400> 4247

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caactacttt catctagccc gctcgcgggtg ggcaatgcac ctacgtacct acaacaacag 120

ttgctgcaac aaattgtacc agctctgact cagctagctg tggcaaacc tgctgcctac 180

ttacaacagt tgcttccatt caaccaactg gctgtgtcaa actctgctgc gtacctacaa 240

cagcgacaac agttacttaa tccattggca gtggctaacc cattggtcgc taccttcctg 300

cagcagcaac aacaattgct gccatacaac cagttctctt tgatgaacc tgccttgacg 360

caaccatcg ttggagggtgc catcttttag attacatatg agatgtactc gacaatgggtg 420

ccctcatacc gacatg 436

<210> 4248

<211> 245

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B12

<400> 4248

ccgacgcgtg ggcccacgcg tccgatcact aaatctaaaa aaaaaaaaaa aaaaaaaagg 60

aaaagggaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa 120

aaagagaaag aaaaaagaac aagaaaaaaa aaaaagacaa ccagcaacaa caggaacaca 180

caagcaacga agaggacgaa ccgaaacaag gagcggacga gaaaaagcaa aaacacagac 240

acaag 245

<210> 4249

<211> 413

<212> DNA

<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-007-Q1-K1-B2

<400> 4249

ctgatttgca ctagttggtt gaagggttga tactcctgtn ggngagagtg agcggggggg 60
ggtttaaaag caagnaaaac atcccttctt aaagcaaggt taggacaagt taaagaaaga 120
aatagcactg ttcttgaatg catacatgtc gatttgcatg gcaaggggaat atcaaattgga 180
ttgtgctaca tagattcgac aacggtaaac ttgcaggagc tacctttgga gggtgggcgg 240
ttcaaagaag aactgttggt aggactccat gatatcagca agaagactga ccttggttatt 300
gcggtgcata acctagcaca ccgaattcca cagtatcaac ggtccaatac ttctcagcct 360
cagcctgctc tttcacttct cttggataaa actaaagcgc taaacattcc ttg 413

<210> 4250
<211> 434
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-007-Q1-K1-B3

<400> 4250

tgcagaggt gctgccttca tggacaggta ctttattttc aagacttact ggagcgagaa 60
agctcgcgaa gggaggggact atgtgcacaa gaacttcaac tgtgaggact tgctcatgaa 120
ttttctgtat gcgaacgcaa gctccacaag gactgtggag tatgtccacc ctgcgtgggc 180
tatcgataca tccaagcttt cttctgtggc cattagcogg gacaccaga aacactacga 240
tatcagaaca gattgcttgg caaagttctc ctccatctat ggccccctcc ctacagaaatg 300
ggagttcggc atgcgtgaag atcattggga caaataggat cgcaatgggt gtacacaacg 360
gattgtttaa accttnttgg taatccccta aaaagtttgt agcttggggg ctacggtgaa 420
gtttgtaggt cctt 434

<210> 4251
<211> 310
<212> DNA
<213> Zea mays

<223> unsure at all n locations
<223> Clone ID: LIB3061-007-Q1-K1-B4

<400> 4251

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ctccttgccc tccttgctct ttcagcaagc gctgctacct ctactattat tccacaatgc 120
tcacaacaat acctctctcc ggtgacagcc gcgggatttc aacacccaac tatacaatcc 180
tacatgctac atgaggccat cgtagcaagc atcttacggt cattagcatt aaccctncaa 240
cagccatatg ccctattgca acaaccatcc ttagtgcac tgtatctcca aagaatcgcg 300
acacaacaac 310

<210> 4252

<211> 364

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B5

<400> 4252

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accaataaga gagctcacgt gttactacag gaaaagggaa aacccatagg atccggactt 120
attatgaaga tgaggagcta attagagcac tatatgagat atcttttagat ccaaattgga 180
aaagtacagg gaggtataa caactgggat ctgccatgtc ataaacaatg aactcagagt 240
catgctacca ctgagtgggc taaatgctat ggcacacatt gagtatacag tgaggcatca 300
tatgaccacg aatcagacta acgaggtact tcttgctaag agtggcacta atcagatgac 360
gatg 364

<210> 4253

<211> 428

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-007-Q1-K1-B7

<400> 4253

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agcagcagcc accgccgcct catcctcgca gccgccgtcc tgctctcogt gctcgcggct 120

gccagcgcca gcgcccggac ctccctgcgtg cccgggtggg ccatcccga caacccgctc 180
ccgagctgcc gctggtacgt gaccagccgg acctgcggca tcgggccgcg cctcccgtgg 240
ccggagctga agaggagatg ctgccgggag ctggccggaca tcccggcgta ctgccggtgc 300
acggcgctga gcattcctcat ggacggcgcg atcccgcggg gcccgacgc gcagctggag 360
ggccgcctag aggacctgcc gggctgcccc cgggaggtgc agaggggatt cgccgncacc 420
ctcgtcac 428

<210> 4254

<211> 411

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B8

<400> 4254

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aagttgagtt gcaaacaatg aacgtgcagc agcccgtga tgttgccgga cccagcgagg 120
gggtggcggc gatctccaaa ggggggaagg tagggccgaa ccggtgcagc gcctgcagga 180
agaggggttg acttacggga ttcaactgcc ggtgtgggaa cttgtactgc gcactccacc 240
gctactccga caagcacgac tgcaagtctg actaccggac tgctgccagg gacgccattg 300
ccaaggctaa tccggtggtg aaggcagaca agctcgacaa gatctagggg gggttcccta 360
cggttgggta tcaggaagat tgtaaaccgc ggtaactcgt catgcggaac t 411

<210> 4255

<211> 381

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B9

<400> 4255

gaccactcg tccgctggaa gcaacgtata agtggaaattt ctagcattat agagcaacaa 60
tggcgaccaa gatattgtcc ctccattatgc tccttgctct ttctacatgt gttgctaacg 120
cgacaatttt ccctcaatgc tcacaagctc ctatagcttc ccttcttccc ccataccttc 180
catcaattat agcttcaata tgtgaaaacc cagctcttca accatatagg cttcaacaag 240

caatcgcagc aagcaacata cctttatcgc ccttggtggt tcaacaatcg ccagccctat 300
 ctttggtgca gtcattggta caaacatca gggcacaaca gctgcagcaa ctctgctac 360
 ctctgatcaa ccaagtagct c 381

<210> 4256

<211> 417

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C1

<400> 4256

tgcgagcagg gtctgtcatc actgagccat ttatatgtgg tgaaccctgt cacctacttg 60
 caacagcagc tgcttgcac ccaaccactt gctctggcga acgtagctgc ataccagcaa 120
 caacaacagc tgcaacagtt tatgccagtg ctcaagtcaac tagccatggg gaaccctgcc 180
 gtctacctac aactactttc atctagcccg ctgcgggtgg gcaatgcacc tacgtacct 240
 caacaacagt tgctgcaaca aattgtacca gctctgactc agctagctgt ggcaaaccct 300
 gctgcctact tacaacagtt gttccattc aaccaactgg ctgtgtcaaa ctctgctgcg 360
 tacctacaac agcgacaaca gttacttaat ccattggcag tggctaacc attggtc 417

<210> 4257

<211> 422

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C11

<400> 4257

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 tgcttggttat ttgcaacaac aacaactacc attcagccag ctacctgctg cctaccccca 120
 gcaatttctt ccattcaacc aactggcagc attgaactct cctgcttatt tacagcagca 180
 acaactacta ccattcagcc agctagctgg tgtgagccct gctaccttct tgatacaacc 240
 acagttgttg ccgttctacc agcacgctgc gcctaacgct ggcaccctct tacaactgca 300
 acaattgctg ccattcaacc aacttgcttt gacaaaccca gcagcgttct accaacaacc 360
 catcattggg ggtgccctct tttagatttc ttatgagtta tagttcaata ataaaagttt 420

tt

422

<210> 4258

<211> 438

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C12

<400> 4258

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ctccaacaac cgtcagccct attacagcag ttacctttgg tccatttggt ggcacaaaac 120

atcagggcac aacaactaca acaacttggt ctagcaaacc ttgctgcata ctctcagcaa 180

catcagtttc ttccattcaa ccaactggct gcattgaact ctgctgctta tttgcaacaa 240

caattacat tcagccagct agttgctgcc taccctccagc aatttcttcc attcaaccaa 300

ctagcagcat tgaactctgc tgcttattta cagcagcaac aactactacc attcagccag 360

ctaacttatg tgaacccttg ttgctttttg acacaacaac cagtgggtggc cgtcttacct 420

gcacgctatg cctaacgc 438

<210> 4259

<211> 345

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C2

<400> 4259

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ggtgagcgga tcgagatggc ggcgtcggat gttgagtacc gctgcttcgt cggcggcctc 120

gcctgggcca cggacgacca ctccctccac aacgccttca gcacctacgg cgaggtcctc 180

gagtccaaga tcctcctcga tcgggagacg cagaggtccc gcggcttcgg ctctcgtcacc 240

ttctccacgg aggaggcgat gcggaacgcc atcgagggca tgaacggcaa ggagctggac 300

ggccgcaaca tcaccgtcaa cgaggcccag tcccgcggcg ggcgt 345

<210> 4260

<211> 352

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C3

<400> 4260

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ctcacttgct cctagtgccca ttattccaca gtctctccca ccagttactt caatgggctt 120

cgaacatcca gccgtgcaag cctacaggct acaactagcg cttgcggcga gcgccttaca 180

acaaccaatt gcccaattgc aacaacaatc cttggcacat ctaaccctac aaaccattgc 240

aacgcaacaa caacaacaac aacagtttct gccatcactg agccacctag ccgtggtgaa 300

ccctgtcacc tacttgcaac agcagctgct tgcattccaac ccacttgctc tg 352

<210> 4261

<211> 382

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C4

<400> 4261

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gttggggttcc aatttaaatt tagacttttg atcatttggt attcagaacg agcacgagtg 120

tcacgttatg acgacgtgac caccttgagc tcgaatttct cgacgacgac cagcgacaac 180

ccctccactt gagcggcgcc gagtgctccg tgcctttgat accctagcgt cgcgccagtc 240

gagttggcca tcttaacgcc gttgacatac acggcgaaact gtaccggcgg cgccagcgag 300

ggcagtgccca ggaacatcac cttgccgatg accagtttcc ggctcggggc gtgcgcgctc 360

tgcactcacg tgcgacatga gc 382

<210> 4262

<211> 439

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-C5

<400> 4262

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gctgccttat gtccttgggt ctttctgcaa gcgttgctac cgcaaccatt ttcccacaat 120
gctcacaagc tcctatagct tcccttcttc ccccatacct ctcaccagcg gtgtcttcaa 180
tgtgtgaaac cccaattggt caaccctaca ggatccaaca ggcaatcgca acaggcatct 240
taccattatc acccttgttc ctccaacaac cgtcagccct attacagcag ttacctttgg 300
tccatttgggt ggcacaaaac atcagggcac aacaactaca acaacttggt ctagcaaacc 360
ttgctgcata ctctcagcaa catcagtttc ttccattcaa ccaactggct gcattgaact 420
ctgctgctta ttgcaaca 439

<210> 4263

<211> 450

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-007-Q1-K1-B10

<400> 4263

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gccttatcac ctttccgct ctagggtttt ctgctgcaat ggccgcccgcg agggcagacg 120
gggagcgcag gatcgggggtg gccatcgact actcggagag cgccaagaag ggcgtggact 180
gggccatcga caacctgctc caccacgggg acaccctcgt cgtcgtccac gtcctgcacc 240
acggcgcgga ggagaccaag cacacgctct gggccaagtc cggatccccg ctgatccac 300
tctccgagtt ccgggagccc gaggtgatgc agggctacgg cgtgcgcccc gacgccgagg 360
tgctcgacgc gatcgacacg gcagcgcgcc agaagcagct tgaagtgggtg gcgaagctgt 420
actggggcga cgccaggag aagctctgcg 450

<210> 4264

<211> 396

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-A9

<400> 4264

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cgcagccggg aagagggtccc ggacggagac ggcaacggg gctgcggcg gcgggaagcg 120

ctccaaagac atggagtcac ttcaaactgg tctatcaagc aaatcgaagc cttgcaacaa 180
gttttttcagt acgattgggt gcccgtttgg tgagggatgt cgttttctgc actttgtccc 240
tggcggttac ccggcagttg caaagatgct caatctaggt agccctgctg tatctgcgcc 300
atcaagaact catgtggatc acgctgctct tactggcgcc tctcattcag cttcgtcagg 360
caagacacgc atgtgcacca agtacaatac tacaga 396

<210> 4265

<211> 440

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-026-Q1-K1-B1

<400> 4265

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agccctcgtc aggccgaggg tacacagaaa ccagtatttg atcaccagga ctccttcacc 120
aacgagacac aggactatgt gccgtctcat gtgcgcgaga ggtcgccgctc tctggaggac 180
gatccgtatt tctcctaccc caacttgttc tcggcgccaa aaccttgaag gcggaaacta 240
gtggcctgta actgctagta gtagtcctat tatgtcttgg tcttcgctgt tgcctcgga 300
tttctgtgtg ttgctgagtt tggtagataa cggtagaaaa ggagactact gggttattac 360
ttggctacga aacctgtcta gtttgagtct ctgtaaactg tacatgtacg gtgtctgtat 420
cagttntctg aaacatttct 440

<210> 4266

<211> 407

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<223> Clone ID: LIB3061-026-Q1-K1-B10

<400> 4266

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acacttataa ggggtggtgg gacgaggacc gagattgaca tgcaatatat caaggcagag 120
tacttgaaga agtataagaa gccattagct gaggctatca actccgagac atcaggaaac 180

tatcggacgt tccttctttc acttggttggc catggccatt aggctatgtt tcgaccatgg 240
ggcatgatat ttctatcgat ccaccctaaa tgcagcgacc tacctggaaa acttatgatg 300
ttgccattta tctgtcgtga ctcttggatc taactgccac atatcacata tgcggtcctc 360
agtatgcttg tttaaagtat tcgtgtatat atntccatct gggtttc 407

<210> 4267

<211> 335

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B11

<400> 4267

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gctaattgca tactagctga tgcccctaaa gctcaagcac atgccagcaa tcattagaca 120
gaacaacgaa aagtatacta agccacttct agacactgtc tcattctcaat catcagcagc 180
atattgacca caaatatctg aagagccacg tgcttgccag tctgcatagg agaagcatat 240
gtgaaataac gatctgactt atctaatacga ctcacagcta cagaagcatc atgatccacc 300
atatcaccac atatccttaa agaacgctag atatc 335

<210> 4268

<211> 389

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B12

<400> 4268

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cttccttatg ctcttgggtc tttctgcaag tgctgctacc gcaaccattt tcccacaatg 120
ctcacaagct cctatagctt cctttcttcc cccatacctc tcaccagcgg tgtcttcagt 180
atgtgaaaac ccaattcttc aaccctacag gatccaacag gcaatcgag caggcatctt 240
acctttatca cccttggttc tccaacaacc gtcagcccta ttacagcagt tacctttggc 300
gcatttggtg gcacaaaaca tcaaggcaca acaactacaa caacttgtgc taggaaacct 360
tgctgcttac tctcagcaac agcaagtcc 389

<210> 4269

<211> 56

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B2

<400> 4269

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<210> 4270

<211> 409

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B3

<400> 4270

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gaagcggctc gccgcgagcg tcctcaagtg tgggaaaggc aaagtctggc ttgaccccaa 120

tgaagtcagc gagatctcca tggctaactc ccgccagaac atccggaagt tgggtaagga 180

tgggtttatc atcaggaagc ctcaaaaagt tcaacttatg tcccgtgcaa gaaaggcaca 240

tgaggccaag cagaagggaag agcactctgg atatggcaag cgcacgggta ccaggagggc 300

tatgcttccc accaagattc tgtggatgag gaggatgcgt gttctgaggc gcctgcttcg 360

caagtacccc gagggccaga agatcgacaa gcacatgtat catgacatg 409

<210> 4271

<211> 365

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B4

<400> 4271

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agctcctata gcttcccttc ttccccata ccttccatca atgatagctt cagtatgtga 120

aaaccagct cttcaacct ataggctcca acaagcaatc gcagcaagca acataccttt 180

atcacccctg tttcaacaat cgccagccct atctttggtg cagtcattgg taaaaacat 240

caaggcacag cagctgcagc aactcgtgct acctgtgatc aaccaagtag ctctggcaaa 300
 cctttctccc tactatcagc aacaacaatt tcttccattc aaccaactat ctacactgaa 360
 ccctg 365

<210> 4272
 <211> 430
 <212> DNA
 <213> Zea mays
 <223> unsure at all n locations
 <223> Clone ID: LIB3061-026-Q1-K1-B5
 <400> 4272

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 accggcggtat gcaaggagtc gcagatgcgc gccaccaaga tcttcgggggt cgtctccgac 120
 gcctacgagg tcgtcccgcc ggccagggcc agggccagcg gcgcggtgcc ccgcctcttc 180
 gacttcgcgc tgcggcgctt ggaggagcgc tggcgcatcc tgcgcgccac cgtggctgcc 240
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 gtgacagctt gccctgcgtt cgcgtggctg cngtgtgaga aggagggcgt cgaggactgc 360
 ggggagttgc tcgccggcca caatatcgtg ggtagcggcg gtgagcagtt cggaggagac 420
 gcgcggtgcg 430

<210> 4273
 <211> 451
 <212> DNA
 <213> Zea mays
 <223> Clone ID: LIB3061-026-Q1-K1-B6
 <400> 4273

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 ctgcgccgtg ccgggttgtt ttcgctgggt gattaaggct cgggattcga gatctacgcg 120
 agtcgcgggc aagcagccat gagcgaggct ttcgagggt acgagcggca gtactgcgag 180
 gcctccgcct cgctctcccg caagtgcacc gctgcctccg ccctcgatgg ggagaagaag 240
 aagcagaagc tgtccgagat ccaatccggc gttgaggaag ctgaatcgct gattcgtaag 300
 atggacctgg aggcaaggag cctacagcct agcattaagg ctggtttgct tgcaaagctg 360

agggagtata aatctgacct caacaacgtc aagagtgagc ttaagaggat ctcagcgccc 420
aatgctaggc aggctaccgc ggaggagctc c 451

<210> 4274

<211> 355

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B7

<400> 4274

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gagatagttg caaaggagac tgctgatcta cttgatcgta gtcagcgtct ctctgtccgt 120
gaacttgcca tgaagtttga gaagggctct agcactgccca cattgctgtc gaatgaggtt 180
aaatggagac aagtagcttt gatggagcgg gatatccttt tgaagaatct aaagagtgt 240
ttatagtcac tgagaggtca ggtgacaggc aaaactaacg atgaaatcca ggagtctata 300
tctatgggtgg agatccttac ggttcagctc tgcaaaagag aatctgagtt ggttc 355

<210> 4275

<211> 436

<212> DNA

<213> Zea mays

<223> Clone ID: LIB3061-026-Q1-K1-B8

<400> 4275

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ctagctgcat actcggtcac gtcctatgg ctcaagctct tggcagcagt catttgaaag 120
aagaacgaag agtatggtaa gccactgcta gacagggaag catctcaatc ttcagcagca 180
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